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This report on existing library reference and research resources in the North Country area, the needs of area users, and possibilities for cooperation and development of library resources in one of the studies conducted in terms of the proposed Reference and Research Library Resources (3-R) library network in New York State. The survey was carried out through field visits, interviews, questionnaires and checklists, with data collected on all area libraries and other facilities which use library research materials. Findings show that although there are distinctive library needs at all levels in this sparsely populated area, institutional and regional self-sufficiency are impossible, and it will continue to be necessary to go outside the region for access to certain kinds of research materials. Suggestions for library development to meet reference and research needs involve maximizing use of existing and potential regional resources through cooperative endeavors, while also coordinating these efforts with other 3-R systems and with expected statewide development such as centralized cataloging, computer-based union lists, and facsimile transmission. Detailed recommendations are made for the North Country Reference and Research Resources Council as a 3-R system, administrative planning, bibliographical devices, communication techniques, and shared resources. Appendixes include the faculty questionnaire and data on library holdings of selected reference books and periodicals. (JB)

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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PREFACE

This report on the library reference and research resources of the North Country, and the possibilities for increasing the availability of these resources through cooperation, adds yet another regional report to the growing list of studies which the New York State Library has encouraged and financed over the last five years in support of the so-called 3-R Plan. The survey on which this report was based was proposed by the North Country Reference and Research Resources Council and was financed by a grant from the New York State Library through the North Country Library System and the Clinton-Essex-Franklin Library System.

Unlike previous 3-R reports, this North Country report is concerned with an area which is largely rural, industrially underdeveloped, and remote from metropolitan centers. Nevertheless, the library situation in the area is dynamic. New and larger buildings are under construction or in the planning stages for nearly all the academic libraries and for one of the central public libraries. Growth in library resources, especially at the two state colleges, will, in a few years, so improve area resources that much more of the reference and research need can be met regionally.

In the five years that have passed since the Report of the Commissioner's Committee on Reference and Research Library Resources, a number of developments and changes have occurred in the 3-R Plan itself and in the strategy of the New York State Library for implementing it. Whatever may be the eventual pattern of development in New York State, it is evident that the North Country can not be regarded in 3-R planning as an area of limited resources, limited needs, and limited expectations. The eventual statewide plan for better utilization of library research resources will need to consider not only urban industrial areas but also those areas like the North Country where the importance of access to information is not diminished merely because the potential users are dispersed rather than concentrated.

Throughout the course of this survey we have enjoyed the advice and assistance of the North Country Reference and Research Resources Council. It has been a pleasure to attend four of their meetings over the last 15 months and to visit most of the members in their own libraries. The cooperation of the Council officers--Roger Greer, President; Robert Carter, Vice-President; Mrs. Mary Parker, Secretary; and Andrew Peters, Treasurer--was especially helpful. Nicholas Smith, then of the Clinton-Essex-Franklin Library System and now of the North Country Library System, handled some of the field work in connection with library checklists.

All of the librarians we visited during several week-long excursions to the North Country were most cooperative in providing information about their libraries and in arranging appointments with various non-library persons. The graciousness of their hospitality on all these occasions is also remembered with appreciation.

During visits in June and November, 1965, and in January, February, June, and September, 1966, we saw many aspects of the North Country and came to appreciate the difficulties of providing library service over such an extensive area. Those who have visited Plattsburgh in January, driven from Syracuse to Potsdam in February, or crossed the Adirondacks to Albany in any season need no further statistical evidence of the effects of distance on library use.

Guy Garrison and Barbara Slanker

Library Research Center
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CHAPTER I

BACKGROUND AND DEVELOPMENT OF THE SURVEY

The story of the development of New York's pioneering public library system network and of the efforts to achieve an extension of the system concept through establishment of a reference and research resources network has been told so often and so fully in reports and articles emanating from the New York State Library that it seems scarcely necessary to repeat much of that history here except to refer to a few points that affect directly the situation in the North Country.

The need for some kind of state effort toward improving reference and research library service was recognized in 1960 when the Commissioner of Education appointed a Committee on Reference and Research Library Resources to study the problem of library service of an advanced level to students, scholars, and to the professional and research community. The final report of the Committee, which appeared in December, 1961, recommended a total coordinated program for libraries of all types, proposed a State Reference and Research Library Resources Board, and urged the establishment of regional research library systems based on the voluntary cooperation of research libraries, academic libraries, and public library systems.[1] The final report was preceded by an interim report to the Regents in November, 1960, which presented in general outline the recommendations of the Committee,[2] and later by a brief summary report distributed in January, 1961, which outlined the Regents' plans for meeting the recommendations of the Committee.[3] Legislation based on these recommendations was prepared and the 3-R Plan was launched.

The North Country Council

As interest in the 3-R Plan grew around the state, librarians in the several regions, encouraged by the New York State Library, began to form regional groups to promote the legislation and make plans for the time when state funds would be available. On November 18, 1964, an ad hoc group of North Country librarians met at St. Lawrence University to discuss the 3-R Plan and its scope. A second meeting was held on December 14 at which representatives from the New York State Library were present. It was decided at this time to establish formally a regional group to be known as the North Country Reference and Research Resources Council. Although representatives from libraries in the Plattsburgh area were not among those who participated in the first meetings, they were included in the plans from the beginning. The area to be covered by the Council was established as the six counties which comprise the North Country Library System and the Clinton-Essex-Franklin Library System.

In New York State, the term "North Country" is used rather loosely to refer to a region whose boundaries vary depending on the agency or person using the term. Geographically and historically, however, the North Country area covered by this newly formed library Council does have a recognized identity and distinctive characteristics. The six counties included--Jefferson, Lewis, St. Lawrence, Clinton, Essex, and Franklin--constitute the largest of the generally recognized "regions" of New York State. The Adirondack Mountains, which cover a large part of the north central portion of New York State, form a natural barrier that isolates much of the North Country from the rest of the state, and there is a fairly strong regional identification on the part of people and institutions with this tramontane area.

The North Country Council was not the first to group these six northern counties into a North Country region. The Catholic Church, for instance, recognized the distinct identity of the North Country when it established the Diocese of Ogdensburg in 1872.[4] The area was separated at that time from the Diocese of Albany, and towns in northern Herkimer and Hamilton counties were included in addition to the six North Country counties.

In economic terms, the North Country has long been recognized as a distinct region, perhaps because its lagging economy has made unemployment chronic. These six counties, as the "Northern Area," comprise one of the ten economic areas used by the New York State Department of Commerce and other state agencies in planning and in reporting.[5] The six counties, along with Washington, Warren, and Hamilton counties, are also grouped in the North Country Economic and Cultural Council recently established under the guidelines of the Federal Economic Development Administration. This council has established two economic development districts; the first encompasses Jefferson, Lewis, St. Lawrence, and Franklin Counties; the second takes in Clinton and Essex counties along with the three additional counties named above.

The North Country Reference and Research Resources Council's immediate purpose in seeking a charter was to take advantage of the New York State Library's offer to make planning grants to such regional groups to conduct surveys of regional library resources and to make plans for the eventual establishment of 3-R systems. The North Country Council began immediately to plan for such a survey and to prepare an application for a grant. A Projects Study Committee was also appointed to initiate other projects of more limited scope, such as regional union lists.

The application of the North Country Council for a grant to support a regional study encountered some initial opposition in Albany. Since the original reports on which the 3-R legislation was based had envisioned regions larger in population and richer in library resources than the six North Country counties, it was felt that any survey undertaken in this area should be extended to include a consideration of the role that the resources in the two nearest metropolitan centers, Syracuse and Albany, would play in meeting the research needs of the North Country. It was also suggested that the persons doing the survey keep in close touch with other regional surveys then under way around the state and since completed--the Nassau-Suffolk,[6] the Mid-Hudson-Ramapo-Catskill,[7] and the Western Frontier.[8]

The first suggestion, with its implication that the North Country attach itself to either Syracuse or Albany, was not well received by North Country librarians, who felt that it only confirmed what they had suspected--that library leaders in Albany were not fully aware of the distinct problems and the needs of their large, albeit thinly-populated area. It was felt that these problems merited analysis and that no simple solution, such as dividing the area up and assigning it to regions based on metropolitan centers as distant as Syracuse or Albany would be satisfactory.

At this point the North Country Council approached the Library Research Center, University of Illinois, about undertaking a survey. A representative from the Center attended the June, 1965, meeting of the Council to discuss the survey. It was agreed that the Council would resubmit its survey application with the amendments suggested by the New York State Library. On the basis of a survey proposal prepared by the Center, the New York State Library accepted the North Country Council's request for survey funds and a grant was approved in September, 1965.

The Objectives of the Survey

The "Survey of Library Research and Reference Resources in the North Country Area of New York State" was planned in terms of the proposed 3-R library network in New York State and was to complement similar regional studies done elsewhere in the state as part of the effort by the New York State Library to document regional needs for reference and research library services and materials. The existing and potential library resources in the academic, public, and special libraries of the six-county North Country area had never been systematically studied, nor had the relationship which area libraries might have to major existing resources in Syracuse, Albany, and in nearby Canadian cities been examined.

The specific objectives of the survey, as outlined in the survey proposal, were these:

A. To describe the existing library resources in the six county area, to point out serious gaps in the total holdings of the area, and to make an analysis of forces that are at work to create increased demand for advanced library resources.

B. To describe present and potential cooperative endeavors which are aimed at making the best use of reference and research resources and to describe planned or anticipated developments in the various libraries in the area as they affect the total library resources of the North Country.

C. To identify those educational, industrial, research, governmental, and other institutions in the area having present and potential needs for advanced reference and research facilities and services.

D. To estimate the number of current and potential users in such categories as professional, technical, faculty and student, business and industrial, governmental and research, and to describe the levels of library resources needed by them and the ways in which these needs can best be met.

E. To determine the feasibility of establishing a regional reference and research system centered in the six county area, and, in order to determine this feasibility, to consider also the major resources in such contiguous areas as the Syracuse and Albany metropolitan areas and the chief library resource centers in nearby Ontario and Quebec and the role which these centers have in providing advanced resources and services.

F. To identify which of the many possible functions of a regional reference and resource center are most necessary to meet the library needs of the North Country.

G. To determine the probable costs of establishing a reference and research network to carry out the suggested functions.

H. To make recommendations concerning the best location, whether in the six county area or in contiguous areas, for the various levels of library service envisioned by the 3-R legislation, i.e., Regional Agency, Advanced Research Centers, and Reference Centers.

The survey was carried out by general library survey techniques, including field visits, interviews, questionnaires, and checklists. Data were collected on all the libraries in the six-county area and, as far as possible, on other facilities such as research and development firms, governmental agencies, schools, and hospitals, which would presumably be making heavy use of library research materials. The resources of contiguous areas were considered, but the material on libraries in these areas has come primarily from secondary published sources rather than from visits.

Although a great deal of information on the North Country area and on area libraries is available in published form, considerable use was also made of checklists and questionnaires in collecting additional data from some libraries and library users. Also important to the survey were interviews held with library staff members at most of the larger libraries and, at the larger academic institutions, with representatives of the administrative staff, such as deans or presidents, as well. Much of the data collected have been non-quantitative, and even subjective, since no survey of resources and needs can rely solely on numbers of volumes and similar counts. The contents of the various checklists and questionnaires used are discussed in the sections of the report where the results are reported.

In the year that has passed since the survey was first outlined, a number of developments in New York State have altered somewhat the situation which the survey was designed to investigate. The legislative approach to establishing a large-scale state-aided reference and research resources network is not currently being pressed. Instead, as a result of the First Governor's Library Conference, held in Albany on June 24-25, 1965,[9] the Governor asked in his budget for a special appropriation to make studies relating to better utilization of reference and research resources in libraries, and more specifically, to study the ways in which such resources could better be utilized through data processing techniques. This request was granted and the New York State Library received $700,000 for the initiation of the 3-R system concept. The current strategy of the New York State Library is to use a budgetary rather than a legislative approach during the initial stages of the 3-R network development; to encourage the regional councils through demonstration grants; and to use much of the limited money available now for projects at the state level which will benefit all libraries; these include facsimile transmission, studies of computer-based cataloging, improved interlibrary loans, a statewide union list of serials, and the establishment of an Academic and Research Library Bureau.

Because of these developments, the survey report departs at times from the stated objectives, giving less attention to some features which were of interest only in terms of the 3-R legislation and giving more attention to certain other features that were not contemplated in the original legislation. Yet, because of the importance of the 3-R system concept in library planning in New York State, it seems necessary to outline the environment for library services in the North Country and to contrast the actualities there with the predications on which the 3-R legislation was based.

Access to Reference and Research Library Resources

The structure for the distribution of state aid under the proposed 3-R Plan was more suited to populous urban areas than it was to large but thinly-populated areas such as the North Country. It was in recognition of this fact that early recommendations for dividing the state into reference and research regions attempted to assign the more rural counties to regions that included a large metropolitan area; the six North Country counties were tentatively assigned to regions embracing either Albany or Syracuse.

Since there has been some disagreement about how many regions should be established and what areas should be assigned to them, it may be useful at this point to review the recommendations of the Commissioner's Committee on these points. The Interim Report of November, 1960, recommended that a State Reference and Research Library Resources Board be appointed which would, among other duties, "assist in the development of not more than five regional reference and research library systems."[10]

The summary pamphlet of January, 1961, based on the interim report, stated:

> In order to give proper attention to the special interests and problems of geographic regions, the Regents recommend the establishment of a network of no more than five regional reference and research library systems working in cooperation with each other and the State Library.[11]

An accompanying map of the proposed five regional systems included the six North Country counties in a single region extending from the Canadian border south to Westchester County.

The final report of the Commissioner's Committee, when issued in December, 1961, recommended that the statewide agency to be formed "would assist in the development of five or six and not more than eleven regional reference and research library systems. . . ."[12]

Further confusion as to the desirable number of regions came from a 1963 study of the statewide aspects of the proposed legislation which proposed a seven region plan in which the North Country area was split between a Hudson-Adirondack Region (based on Albany) and a Syracuse Region.[13]

The regional studies made since 1963 in support of the 3-R Plan have generally accepted the five-to-seven-region breakdown and have tended, moreover, to concentrate on research library resources in metropolitan areas and have perhaps failed to give "proper attention to the special interests and problems of geographic regions" that the Committee recommended in its final report.[14] These studies have based many of their recommendations on library use patterns as they exist in densely populated areas where the user can readily move from library to library in search of needed material. These reports have seen as one of the major benefits of the 3-R Plan the availability of on-premises use of a major research library to qualified users from outside that institution's regular clientele, with state aid being used in turn to recompense the research library for this added responsibility. Since the potential users of research library resources in such relatively remote and rural areas as the North Country are, for the most part, living at considerable distances from large urban centers and existing research libraries, the value of this kind of direct access is diminished.

Some very basic facts of geography and transportation, for instance, cause problems of access to library resources which are more severe in the North Country than elsewhere in the state. The North Country is a region of topographic contrast. The Adirondacks are an ancient, well-eroded mountain range, and although the mountains are scenic and attractive, they are rugged enough to make the construction of highways and railroads difficult and to impede travel during much of the year. Once one has crossed the mountains, however, the land flattens out and the plains of the St. Lawrence River and Lake Champlain, where the major population centers are found, are gently rolling and wooded.

Public transportation in the North Country is available but not convenient. The Delaware and Hudson Railroad supplies Plattsburgh with the only passenger rail service in the North Country, connecting it with Montreal, New York City, and Albany. The other cities in the area have freight service provided by the Delaware and Hudson, New York Central, and several short lines, but no passenger service. Mohawk Airlines serves five cities (Watertown, Ogdensburg, Massena, Plattsburgh, and Saranac Lake) and connects them with Albany, New York City, Syracuse, and Toronto. The four bus lines that serve the North Country provide the best available public transportation. Greyhound, Trailways, Adirondack Trailways, and Colonial have regular runs that connect most of the cities and also provide access to Montreal, Albany, New York City, and Syracuse.

The private automobile is the most widely used means of transportation in the North Country. Although many of the highways are narrow and winding, the construction of two Interstate Highways and three international bridges (Thousand Islands bridge, Ogdensburg-Prescott bridge, and Massena-Cornwall bridge) has greatly improved the highway network. Interstate 87, still incomplete, goes along the eastern edge of the region from Albany to Canada, and Interstate 81, also incomplete, links Syracuse, Watertown, and the Thousand Islands Bridge, providing an expressway for the western section. U.S. 11, which crosses the area from east to west, is scheduled for eventual replacement by a highway of more modern design.

Potential Users of Reference and Research Library Resources

The potential number of users of research resources in the North Country is small in comparison to the large numbers to be found in the other areas which have been suggested as centers for 3-R systems. According to the 1960 Census of Population, 375,087 persons lived in the six counties in the North Country. The rate of population growth in the North Country has been lower than that of upstate New York, the State as a whole, and the nation. In the decade 1950-1960, the population increased by 34,610 or 9.2 percent. The relatively low rate of growth in the area can be explained in part by the economy; while the labor force is skilled and well-educated, suitable employment is limited and many people leave the region yearly for jobs elsewhere.

The median age of the population in 1960 was 27.7 years, which is lower than the upstate median of 31.3 years, the New York State median of 33.1 years, and the U.S. median of 29.5 years. The relative youth of the population, which is not usually a characteristic associated with an economically depressed area, may reflect, in part, the large number of students in the area's institutions of higher learning and the young personnel and their dependents at the Plattsburgh Air Base.

In the predominantly agricultural North Country area, persons 25 and over have completed fewer years of schooling than residents of more industrialized regions of the state. The median for the North Country is 10.2 years of schooling, compared with 10.7 for upstate New York. While 37 percent of the North Country residents have completed four years of high school and 6.1 percent have finished four or more years of college, the comparable upstate ratios are 40.3 percent and 7.7 percent.

The legislation which was introduced to establish the 3-R network in New York State called for a method of financing based primarily on area population in two distinct categories. For each student enrolled full time in a chartered institution of higher education, the system would receive annually $6; for each part-time student, the amount would be $3. For each professional, technical, or kindred worker reported in the area by the last decennial census, the allowance to the system would be $1. Upon being chartered, the regional reference and research system would receive an establishment grant of $25,000.

If the formula for state aid to 3-R systems proposed in the original legislation is applied to a region composed of the six North Country counties, an annual support figure of $85,179 is derived. This figure is based on $1 for each of 13,386 people in the professional, technical, and kindred category from the 1960 Census; $6 for each of 11,317 full-time students in area colleges and universities; and $3 for each of 1,297 part-time students. In comparison, the recent report on a 3-R system for Nassau and Suffolk Counties came up with a support figure of $295,000 for 1965, rising to $562,000 by 1970.[15] For the projected Buffalo-Niagara system, the estimate for 1970 is between $403,000 and $416,000.[16]

No estimates or projected figures are available for 1970 for the North Country, but it is evident that, barring totally unforeseen developments, the growth rate will not be at all comparable to that expected in regions that embrace major metropolitan areas. Available figures show that college enrollment has been rising by about 15 percent a year, but the number of professional, technical, and kindred workers has probably not achieved that rate of growth.

Potential Educational Use

College enrollment and other aspects of higher education in the North Country deserve further consideration because of the use which those associated with higher education can be expected to make of reference and research library services. The North Country is well supplied with facilities for higher education, including state-supported institutions, private colleges offering two- and four-year programs, and schools of nursing affiliated with hospitals.

The state-supported colleges which are branches of the State University of New York are the State University Colleges at Potsdam and Plattsburgh, offering instruction leading to bachelors and masters degrees, and the Agricultural and Technical College at Canton, which has a two-year terminal program specializing in agriculture, business, and industrial technology. Jefferson Community College in Watertown, affiliated with the State University of New York and supported by Jefferson County, offers a two-year program of instruction.

The two private four-year colleges in the North Country are St. Lawrence University at Canton and Clarkson College of Technology at Potsdam. St. Lawrence is a small liberal arts college emphasizing an undergraduate program, and Clarkson, the only school in the area offering a Ph.D., specializes in science and technology. Three of the two- or three-year area schools are privately supported: Paul Smith's College, Mater Dei College, and Wadhams Hall. Paul Smith's College is non-denominational, while Mater Dei and Wadhams Hall are under the control of the Catholic Church. A survey of the North Country facilities for education beyond the high school level is completed by mention of the schools of nursing which are affiliated with the hospitals in the area: A. Barton Hepburn Hospital and St. Lawrence State Hospital in Ogdensburg; Champlain Valley Hospital in Plattsburgh; and the House of the Good Samaritan Hospital and Mercy Hospital in Watertown.

The North Country has for a long time imported more students to area schools than it has exported. Table 1 shows the enrollment in the several colleges and universities in the fall semester of 1965. Student population, however, is only one part of the group of potential users of research library resources that is connected with higher education.

TABLE 1

ENROLLMENT IN NORTH COUNTRY ACADEMIC INSTITUTIONS FALL, 1965

Institution	Full-time Enrollment	Part-time Enrollment
Clarkson College	2,064	3
St. Lawrence University	1,734	152
SUNY - Potsdam	2,171	366
SUNY - Plattsburgh	2,412	710
SUNY - Canton	1,024[1]	
Jefferson Community College	755[2]	
Mater Dei College	125	62
Paul Smith's College	923	4
Wadhams Hall	109	
Total	11,317	1,297

SOURCE: *Opening Fall Enrollment, 1965*, OE-54003-65, Circ. no. 796.

[1] Includes 1,002 undergraduate students in occupational or general studies programs not chiefly creditable toward a bachelors degree.

[2] Includes 400 undergraduate students in occupational or general studies programs not chiefly creditable toward a bachelors degree.

Another group expected to make a great amount of use of the proposed 3-R systems is faculty and staff at institutions of higher education. Since college enrollment in the North Country has been experiencing considerable growth, the number of faculty and other professional persons employed in area colleges and universities has also been rising. Thus, higher education makes up one of the important segments of the local economy, and faculty members represent a sizable proportion of professional and technical personnel in the area. Some evidence of the library use patterns and research needs of this important and representative group is presented in Chapter III.

Potential Professional and Technical Use

It has already been pointed out that the rate of growth in numbers of professional, technical, and kindred workers in the North Country is comparatively slow. Nor does the current sluggish state of the economy of the area indicate a great potential for increase.

Private industry provided 83.6 percent of the total employment in the North Country in 1960, which was below the upstate figure of 87.1 percent. The self-employed, primarily farmers and proprietors of tourist-related enterprises, constituted 16.3 percent of the labor force, a larger proportion than in any other of New York's economic areas. State and federal government employment supplied 16.4 percent of the area jobs in 1960. This high rate is second only to the Capital district and results from the large number of state and federal installations located in the region.

The labor force in the North Country is the smallest of any economic area of the State, both in actual numbers (128,700 in 1960) and in the proportion of persons 14 years and over in the work force. The relatively small number of women in the work force and the large non-working student population account in part for the low proportion of total population in the work force.

The composition of the North Country labor force differs from other regions of the State. The most unusual feature of the occupational distribution is the relatively high proportion of farmers and farm managers--6.9 percent of the work force, which is much larger than the upstate average of 2.6 percent. Although operatives are the largest occupational group (17.0 percent), they are smaller than the upstate average of 19.8 percent. Professional and technical workers account for a little more than 11 percent of the work force, which is less than in most upstate regions.

The concentration of agriculture and the smaller proportion of jobs supplied by manufacturing distinguish the industrial pattern of the North Country from the upstate area. Although manufacturing is the largest single source of employment (21.2 percent of the jobs in 1960), industry is much less important in the North Country than in the State's other economic areas. Trade and services provide a relatively more important source of jobs than in other economic areas of the State and account for 18 percent of the employed persons in the North Country. The 11.6 percent of the persons employed by agriculture constitutes a far greater proportion than the upstate average of 4.6 percent.

Spectacular construction projects which had a great impact on the area's economy because they provided jobs and markets formerly lacking were underway in the North Country during the decade of the 1950's. The St. Lawrence Seaway and Power Project was the largest program and because of its size, the one that had the most far-reaching effects. In Massena the Alcoa Company's expansion and modernization of its facilities for aluminum reduction and fabrication influenced the economic picture. The building of two international bridges which spanned the St. Lawrence River and the construction of the Plattsburgh Air Base and missile complex were important factors in the economy of the area.

Although the area's economy had an upward surge during the construction boom, it began to decline as the projects were finished. The economy of the North Country has fallen behind the rest of the State and chronic unemployment has been a serious and persistent problem. The State Department of Commerce has been concerned about the situation and is working on plans to promote economic development. The six counties are members of the new North Country Economic and Cultural Council which has federal funds to establish economic development centers at St. Lawrence University and at Plattsburgh State College for the benefit of the area.

Potential Research and Development Use

In studies made so far for the New York State Library in support of the 3-R Plan, the amount of research and development activity in a proposed region has also been used as one measure of the need for a 3-R system. Research laboratories, whether industrial, governmental, or academic, are presumed to employ professional scientific personnel who would form one of the major user groups of the advanced research and reference service which the 3-R systems would provide.

The North Country is not presently well supplied with research facilities or research-oriented industry. Despite the flurry of industrial development that was stimulated by the St. Lawrence Seaway and Power Project, the area remains industrially under-developed. The Directory of Industrial Research Laboratories in New York State (1964 ed.) shows fewer listings for the North Country than for any of the nine other economic areas of the state. A few of the industrial laboratories that are located in the North Country are divisions of major national firms which carry on only part of their research activity in this area. Their employees often have access to needed research materials through the parent company and are not dependent on local library resources. The Alcoa Research Laboratories at Massena employ nine engineers and eight other technical personnel in research and testing on electrical conductors and accessories. At Rouses Point, the Ayerst Laboratories Division of American Home Products Corporation employs 36 chemists and 16 other technical personnel in pharmaceutical development. Several paper mills in the North Country jointly sponsor the Fiber Products Research Center at Beaver Falls, which has six chemists, four engineers, and five other technical personnel engaged in basic research on cellulose, paper, and plastics.

Other smaller research units include Carbola Chemical Company at Natural Bridge with one chemist and two technical personnel working on mineral and ore processing research; Imperial Paper Company Laboratory at Plattsburgh with two chemists; International Hormones Laboratory in Port Henry; Knowlton Brothers at Watertown with two chemists, one chemical engineer, and five technical personnel for research on paper; J. P. Lewis Company of Beaver Falls with two chemists and three other technical personnel working on paper research; Stebbins Engineering and Manufacturing Company of Watertown with four chemists, 15 engineers, and six other technical personnel for research and development on chemical construction; Latex Fiber Industries Laboratory at Beaver Falls with four engineers and four other technical personnel doing research on latex-fortified fibers; and the Trudeau Foundation Medical Research Laboratories at Saranac Lake with eleven professional and six other technical personnel doing research on emphysema, tuberculosis, and other pulmonary diseases.

The firms identified above thus employ only around 150 professional and technical people on industrial research activities. The list does not include all of the major industries in the area or all of the non-research professional and technical personnel from industry who would also be potential users of a regional 3-R system, but the brevity of the list is indicative of the fact that, despite its good labor force, natural resources, and power supply, the North Country has not yet achieved a high degree of industrial development. Without such development, there will be little industrial research going on, and there will not be a great demand from industry for supplementary research library facilities in the area.

The Direction of this Study

As this introductory chapter has indicated, the potential number of users of research resources in the North Country is small in comparison to the large numbers to be found in other parts of the state which have been suggested as areas for 3-R systems. The number of college students, and of professional and technical personnel, upon which the suggested aid formula depended, is also small. There is relatively little industry or research activity in the area. In addition, there is no single existing library which begins to approach in size the collections of those libraries such as Syracuse University, Buffalo and Erie County, the New York State Library, and Cornell University, which have been suggested as library resource centers for various regions. It is fairly obvious that, judged only in quantitative terms, the North Country could not stand alone as a 3-R system under the terms of the legislation which was proposed.

Despite these facts, however, there still exists in the area an obvious need for access to more complete reference and research resources, a need which, in the opinion of many librarians and library users in the area, could better be met by augmenting local resources and by encouraging local initiative than by assigning the area to large but distant centers such as Syracuse or Albany as part of a 3-R system. Since the original 3-R approach has now been modified, it seems even more urgent to argue that the limitations of this original legislation not be allowed to determine the whole direction that the New York State Library and the regional councils in the state may take in regard to improved reference and research library resources. The Commissioner's Committee recognized that for physical and financial reasons it would never be possible to develop total collections of knowledge in all parts of the state, but that geographically well-located collections of research materials are vital to the welfare of the state and that, since needs and conditions vary in different geographic areas, the forms that state-assisted programs will take must also vary.

It is the purpose of this report to look carefully at the existing library resources in the North Country area, to explore in detail the needs of a typical group of library users of advanced reference and research materials, and to make recommendations for ways in which the North Country Council can work both independently and through the New York State Library 1) to achieve maximum utilization of existing area resources through cooperation, 2) to coordinate the future development of area library resources and services, and 3) to achieve, either through a statewide plan or other means, formalized access to state and national library resources at the research level to supplement those available within the region. Since this report is concerned with a kind of area which has not previously been examined by any of the reports sponsored by the New York State Library in support of the 3-R Plan, it can also perhaps serve to focus attention on reference and research library needs in those other parts of the state which, like the North Country, are removed from metropolitan areas and from concentrations of library resources.

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CHAPTER II

NORTH COUNTRY LIBRARIES

The variety of library facilities available in the North Country is impressive considering the relatively small population and the extensive area to be served. Two public library systems, with 57 and 24 chartered member libraries respectively, give basic public library service throughout the six counties. There are four college libraries, two of them units of the State University of New York and the other two privately supported. Other academic libraries include one public community college, one agricultural and technical junior college, two private colleges offering 2 or 3 year programs, and one Catholic seminary. In addition, there are limited special libraries associated with hospitals, schools of nursing, bar associations, industry, and other organizations. This chapter contains brief descriptive profiles of these libraries along with some general indication of the role they might play in a cooperative regional program for improving reference and research resources.

North Country Library System

The North Country Library System, an outgrowth of the Regional Library Service Center established by the New York State Library in Watertown in 1948, serves a population of 237,057 (1965 Annual Report) in Jefferson, Lewis, St. Lawrence, and part of Oswego counties. Members include 57 chartered and ten unchartered libraries. In terms of area and number of member libraries, it is New York State's largest public library system.

Since 1954 the System has occupied a leased building at 1050 Arsenal Street in Watertown. No direct public service is given at this building, which houses all the centralized services along with a book collection of some 250,000 volumes, most of which are available to member libraries on short or long loan. The Flower Memorial Library in Watertown and the Ogdensburg Public Library serve as co-central libraries for the system and receive central library book aid to build up their adult non-fiction and reference collections.

The services of the System to member libraries include centralized reference and interlibrary loan, the book pool collection, the central library book aid program, audio-visual services, centralized acquisitions and processing, bookmobile and delivery service, and a variety of advisory services. In 1965, the System headquarters loaned over 87,000 books and other materials to member libraries, answered 5,700 reference requests and processed nearly 20,000 volumes for its own collection and for local libraries. Of the 1965 expenditures of $283,000, nearly $47,000 was spent on library materials.

Since no public service is available at System headquarters, library users are dependent on collections at Watertown and Ogdensburg, supplemented by books borrowed for them from the System. Despite the program of central library book aid, the collections at the two co-central libraries are still meager and would support little more than routine reference work. Ogdensburg has around 35,000 books and limited periodical holdings. Seating space is also limited and an addition to the building has been discussed. Since the library also operates the Remington Art Memorial and fairly extensive grounds, the budget ($38,000 for 1964) is insufficient to provide adequately for book purchases ($5,438 in 1964).

The other co-central library, the Flower Memorial Library in Watertown, which has around 50,000 volumes and a 1964 book budget of $6,375, is similarly handicapped in providing reference service beyond a minimal level. Furthermore, much of the present building is given over to local history, genealogy, and museum usages which limit space for books and readers. The City of Watertown has recently announced plans to remodel and enlarge the building at a cost of $400,000, and this should alleviate present space problems.

The North Country Library System took steps this year to expand its centralized processing service considerably. Under the Elementary and Secondary Education Act, it is buying and processing books for area school districts. There is also the intention of extending this service, on demand, to other public library systems and to area colleges. If such expansion can take place, the processing service would reach a volume which would permit effective use of data processing equipment, including computers. Any major expansion of services will require a larger building for the System, and this is also under discussion.

The role which the North Country Library System and its co-central libraries could play in a 3-R system or other cooperative program for better utilization of area library resources would probably involve its services rather than its book resources. Despite total public library book holdings of over 600,000 volumes within the System, there is no adequate reference or periodical collection, and very little attention to library materials at the advanced reference and research level. However, its centralized processing, audio-visual services, interlibrary loan facilities, delivery service, and consultant services do offer possibilities for an expanded area role.

Clinton-Essex-Franklin Library System

The Clinton-Essex-Franklin Library System serves 152,764 people (1960 Census) in a three-county area covering 4,570 square miles. Unlike the North Country Library System, its headquarters are located in the same building as its central library, the Plattsburgh Public Library. The functions of the System are to serve the 24 member libraries through a variety of centralized services; to provide direct service, chiefly through bookmobiles, to communities without public libraries; and to build up, through the central book aid program, a strong collection of non-fiction and reference materials to serve the entire area. The System carries on a centralized ordering and processing service and maintains a union catalog of System holdings. Due to a continuing shortage of staff, the program of providing consultants and specialists has been somewhat curtailed. The staff in 1965 consisted of 18 people, of whom five were librarians.

Although the bulk of System reference resources, periodicals, and nonfiction are housed in the Plattsburgh Public Library rather than in the headquarters, most of the actual reference work and interlibrary loan activity is handled by System staff, who draw on both the System book pool and the central library collection in answering questions and filling requests. The System has an active program of cash grants and book grants aimed mostly at enriching the reference and periodical holdings of member libraries, but the amount of reference work handled at these outlets has been very small.

The System book collection of 91,000 volumes (1965), includes the book pool, which is used for stocking bookmobiles and making up book collections, plus the 17,000 volumes of central book aid material and 5,800 reels of microfilm (mostly periodicals) which are owned by the System and shelved in the Plattsburgh Public Library.

The facilities for work space, reader space, and book storage are inadequate both for the System headquarters operation and the public library. The basement headquarters space is congested and inefficiently arranged. Despite recent renovation, the Plattsburgh Public Library is crowded and short on seating space. The second floor is virtually useless as public space since the staff is too small to supervise it. There are no present plans for a new building either for the System or the Plattsburgh Public Library.

The total expenditures for the System and its 24 members were $266,713 in 1964, of which $41,486 went for library materials. Total holdings that year were 307,870 volumes. The Plattsburgh Public Library in 1965 held 43,000 books, not counting central book aid books, and spent $4,265 for library materials. The total spent by the System itself for books was $20,591 in 1965 out of total expenditures of $165,954.

The limited resources of the Clinton-Essex-Franklin System in serious non-fiction, reference material, and periodicals, and also in staff, will limit the part it can assume in an area program for improving reference and research resources and services. The System has still not developed to the point where much money can be spared from the very basic essentials of public library service. Despite efforts to build up the Plattsburgh Public Library as a strong central reference library, neither the resources nor the reference services are yet significant. There is relatively little cooperation on reference services among the System, the Plattsburgh Public Library, and the Plattsburgh State College Library. If suitable arrangements could be worked out, there would be advantages to cooperative agreements or contracts to make the various collections more available to all qualified users. Any development plan which called for designating an area reference and research center in Plattsburgh, for instance, would have to depend on full utilization of both public and academic library resources.

Jefferson Community College

Jefferson Community College is one of the 28 locally sponsored junior colleges affiliated with the State University of New York. In addition to its two-year programs of technical and general education, it has an evening division which offers credit and non-credit courses. Instruction at the college began in 1963, and in 1965 all operations were moved to a new campus on the outskirts of Watertown. An enrollment of 650 students is expected in the fall of 1966. In anticipation of continued growth, there are tentative plans to add dormitories so that students from a wider area can attend the school. There are no present plans, however, to extend the curriculum into a third or fourth year of instruction.

The library is now housed in part of the Administration Building but construction was started in 1966 on a new library planned for 70,000 volumes and 390 readers. The staff now consists of three full-time persons plus student assistants. Since the college is new, the library book stock is still quite small. At the end of January, 1966, the librarian estimated that there were 8,452 volumes in the collection. The periodical collection is also limited and no extensive files are available. To supplement the collection, the librarian frequently borrows books from the North Country Library System and the Flower Memorial Library in Watertown. Most of the requests for interlibrary loan come from faculty who need books to support instruction. The interlibrary loan service of the State Library is seldom used since the service is slow. The Jefferson Community College Library would benefit from the establishment of a regional reference and research library system, but since its own resources will be quite limited for some years to come, it is not yet in a position to offer much assistance to others.

Mater Dei College

Mater Dei is a private liberal arts college located near Ogdensburg, supported by the Catholic Church and operated by the Sisters of St. Joseph. The school was opened in 1960 for the training of sisters, but in 1961 the policy was changed and lay students were admitted. During the year 1965-66 approximately 150 full-time and part-time students were enrolled. The college now offers a three-year course of study, and there are plans to add the fourth year of study. An extensive program to develop the school's facilities and resources is under way to meet the full accreditation requirements. In their long range plans, the school authorities project an enrollment of 800.

The library is housed in several rooms in the main college building. The reading room is modest in size and is connected to a second stack and reading area by a work room. Bound periodicals are kept in two small rooms some distance from the rest of the library. Construction is now under way of a separate library building that will have a capacity of 100,000 volumes. At present there is one full-time professional librarian on the staff and two part-time assistants. The librarian estimated that the book stock contained about 20,000 volumes in September, 1965. A crash program to enlarge the library's resources has been going on and from September, 1964, to September, 1965, about 7,000 volumes were added.

There has, as yet, been no great need to obtain materials for student and faculty use by interlibrary loan. The nearby libraries at St. Lawrence University and Potsdam State College are open freely to faculty and students and are used often. Materials from the Wadhams Hall library collection are also available for use. As in the case of Jefferson Community College, the Mater Dei library will have little in the way of reference and research resources to share with the area, at least for the next few years, but it would benefit greatly by access to regional resources and services and is eager to cooperate in such a system.

Wadhams Hall

Wadhams Hall was established by the Catholic Church in 1925 to train candidates for the priesthood in the Diocese of Ogdensburg. In 1963 the school moved to new quarters on a 200 acre campus on the outskirts of Ogdensburg. Although the school offered four years of instruction from 1933 to 1958, the program was reduced to two years in 1958. Now there are plans to reinstate a third year in 1966 and a fourth in 1967. The enrollment in the fall of 1965 was 110 students, and the ultimate capacity has been set at 150. About 60 percent of the students are from the Diocese of Ogdensburg. Of the remaining 40 percent, most are from the Syracuse area, but a few are from other eastern states.

The library is housed in a suite of rooms in the seminary building and occupies a total of 6,890 square feet of floor space. It was designed to hold around 50,000 volumes. Most of the shelves are now only one-third full and additional space can be converted to library use without difficulty as needed. The reading room has 2,056 square feet of space and is a pleasant and inviting area with seating space for 40 readers. One full-time professional librarian heads the staff of one and a half clerks and student assistants. The collection contained 23,592 cataloged items plus an additional 2,000 uncataloged titles and 245 periodical titles in 1965-66.

On an informal basis, students have access to the St. Lawrence University Library, Mater Dei College Library, Ogdensburg Public Library, and Potsdam

State College Library. Interlibrary requests have been chiefly for books and primarily for a subject area rather than a specific title. Books are usually borrowed to supplement the library's resources for use in the instructional program, not for research. The library collection at Wadhams Hall, due to its specialized nature, has materials not elsewhere available in the area, but use of these materials by others is not likely to be heavy even if a regional reference and research system were established.

Paul Smith's College

Paul Smith's College of Arts and Sciences is a two-year coeducational, privately supported school located at Paul Smith's, New York, specializing in forestry and hotel management but also offering a liberal arts program. Enrollment in the 1966 fall semester was 915. The library has a separate building of some 12,500 square feet, with seating space for 140; there are plans to add a stack addition in 1967. The 1965-66 library statistics showed a full-time staff of three, a collection of 12,409 volumes, 160 periodicals currently received, and a total budget of around $30,000, of which about $3,000 was for library materials and binding.

The main strength of the library collection lies in the area of forestry. The library holds a number of forestry journals not represented elsewhere in the area. The holdings in government documents on forestry are extensive and are supplemented from time to time by gifts of U.S. forestry documents from St. Lawrence and Canadian forestry documents from Potsdam.

Agricultural and Technical College at Canton

The Agricultural and Technical College at Canton, a unit of the State University of New York, offers a two-year terminal course of study in agriculture, business, and industry, plus an evening and extension program of credit and non-credit courses. The College campus adjoins the southern edge of the St. Lawrence University campus and its instructional plant consists of five major buildings. An entirely new campus on the northern outskirts of Canton is under construction and scheduled for completion in 1967. The new plant is being planned for an enrollment of 1,000 in 1970, but since the 1965-66 enrollment was already 950, the projected enrollment will soon have to be adjusted upwards.

In anticipation of expanded physical facilities, the College is already planning to extend its instructional program. In the fall of 1966, a nursing program leading to an R.N. degree and an Associate in Applied Science degree will be added. A two-year course of study in engineering science will also be added. A two-year transfer program in liberal arts and sciences is being considered, as is the addition of strictly vocational courses. There is no thought of extending the college's program to four years, but according to SUNY policy, the development of its agricultural and technical colleges will increasingly call for the addition of liberal arts curriculums and of short-term, non-credit vocational courses for adults.

The library, which is located in a wing of the Industrial-Technical Building, is now very crowded and short of space. The reading room has space for only 98 readers and frequently all the seats are occupied. Stack space is inadequate and, to make room for recent acquisitions, much of the older collection is stored in another building. Office and work space are virtually non-existent. The library collection consists of 22,990 volumes. Current periodicals received number 434. Newspapers, annual reports, proceedings, and other materials bring the total number of serials received to 564. The book budget has been increasing quite rapidly and is now $33,117 a year. The staff consists of three librarians and three clerks plus student help.

It is the policy of St. Lawrence, Potsdam State College, Clarkson, and the Agricultural and Technical College to allow students free use of all the libraries. The easy availability of books through this arrangement has cut down on the amount of interlibrary loan and most requests which now come are from faculty who need materials for research.

Since the College library has good working collections in subject areas not well covered elsewhere in the area--especially agriculture, business, hotel management, and automotive, electrical, and mechanical engineering, it could play an important role in a plan for area use of reference and research resources if subject specialization were a feature of the plan. One possible limiting feature is the library building under construction on the new campus. It is being planned for a maximum of 30,000 volumes, a figure which will be reached under present growth conditions within three years. From the available plans, it appears that the new library is not being built in such a way that it can easily be expanded, and since official SUNY plans now call for campus libraries up to 150,000 volumes at agricultural and technical colleges, the building may quickly become obsolete.

St. Lawrence University

Chartered in 1856, St. Lawrence University is a non-denominational coeducational college located in Canton with an undergraduate enrollment limited to about 1,700 students. Although most of the students come from New York, New Jersey, and the New England states; there are also representatives from most sections of the United States; only about 10 percent of the students are North Country residents. The University awards Bachelor of Arts and Bachelor of Science degrees and an occasional masters degree in arts, science, education, and psychology.

Academic and physical expansion are under way at the University. The possibility of adding more graduate level courses is being debated by the faculty; some think that the University should expand its graduate offerings, while others think it would be wiser to concentrate on the undergraduate program. When the Agricultural and Technical College moves to its new campus in 1967, St. Lawrence will take over its vacated buildings. A proposed science library serving primarily as a study center will probably be located in the present ATC library.

The Owen D. Young Library, named in honor of a long-time Trustee and Chairman of the University Corporation, is an attractive brick building completed in 1959. Since the building was designed with a book capacity of 250,000 volumes, there is ample room for the present book stock of around 175,000 volumes and for expected growth over the next few years. When more space is eventually needed, the stack wing can be easily extended directly south after a small building next to the library has been removed.

In shape the library building resembles a capital "H". The north wing is taken up with a reading room and a browsing room. The main entrance to the building is in the section that connects the two wings; the circulation department and the card catalog are located in the entry lobby, and staff offices and processing area are in the west part of the area. The south wing of the building contains three levels of stacks with tables and chairs and individual study carrels located adjacent to the stack ranges. On the ground level are faculty studies, a staff lounge, the periodicals department, and a room housing the library's special collections.

The staff has five full-time professional librarians--the university librarian, circulation librarian, chief reference librarian, assistant reference librarian, and cataloger. In addition, there are three half-time positions, one in cataloging, one in acquisitions, and one in documents, making the equivalent of six and one-half full-time professional staff members. Three clerks and 20 student assistants make up the rest of the staff.

In 1965-66 the library had a total operating budget of $104,250. The amount spent on books, other library materials, and binding amounted to $40,900 or 39.1 percent of the budget. The library subscribes to 765 periodical titles and has the most extensive back files of any North Country library. The periodicals, except those which are bibliographies and abstracts, are not classified but are arranged alphabetically by title. The periodicals and tools for using them (indexes, check-in records, microfilm readers), are kept together on the ground floor.

St. Lawrence has been a complete depository for federal documents for many years, and as a result has an excellent collection of U.S. documents. Monographic documents have been cataloged and integrated into the collection. The bulk of the documents are not cataloged but are arranged by Superintendent of Documents number; the Serial Set is shelved as a unit. The library also gets United Nations documents and selected Canadian documents.

The number of volumes borrowed through formal interlibrary loan channels is relatively small because students and faculty have direct access to other library resources in the area. In 1965-66 the library borrowed a total of 149 volumes. The New York State Library and the Library of Congress were the most frequently used sources because their holdings are easily verified. Requests for periodical articles have often been sent to Rochester and Syracuse Universities because they have given good service and their charge for photocopies has been low.

Along with the informal cooperation involved in making their library resources available to students from both schools, St. Lawrence University and Clarkson College have exchanged main entry cards for three years. The cards are filed in the public catalog and serve as a locating device for patrons and library staff. Potsdam State College and the Agricultural and Technical College have recently joined in this arrangement.

Since it has the largest book collection, the best periodical collection, and the most extensive document collection in the area, the role assigned to St. Lawrence in any plan for regional utilization of library reference and research resources will, of necessity, be a major one. Although the University is privately supported, it has a strong regional identification and is likely to be willing to help the area whenever possible. If a cooperative plan involving subject specialization by major libraries were to be proposed, St. Lawrence University would be willing to participate. Any extensive involvement with administering an area program would, however, require outside funding. Within the immediate Canton-Potsdam area, St. Lawrence, Clarkson, Potsdam State, and the Agricultural and Technical College have already established numerous formal and informal cooperative arrangements and the extension of these arrangements to a much wider area is not impossible.

Clarkson College of Technology

Clarkson College of Technology, a privately supported school located in Potsdam, offers a comprehensive educational program in engineering, the sciences, business administration, the humanities, and social sciences. The Ph.D. program, the only one in the North Country, is offered in chemical engineering, chemistry, and physics. After World War II, Clarkson experienced a period of rapid growth. Eighteen new buildings have been erected or acquired since 1948, the most recent being an engineering science laboratory. Clarkson's long range plans include completion of a new main campus at the edge of Potsdam composed of 14 academic buildings and dormitories. The present campus will remain in use as the engineering campus.

The enrollment in 1965-66 was 2,300 students, and of that number 153 were graduate students. An enrollment of at least 3,000 is expected by 1971. Although enrollment has grown, the rate of growth has not been so great as that at the neighboring Potsdam State College. Most of Clarkson's students are not residents of the North Country area but are drawn largely from the northeastern states.

The present Burnap Library is the result of a $100,000 gift which was used to convert a gymnasium built in 1911 into a library. The results were not completely satisfactory. After major remodeling, the building has three floors and four stack levels. The ground floor and stack levels one and three are used for the storage of periodicals. All the books in the collection are shelved on the second stack level which is contiguous to the main floor of the library. The second floor is devoted to reading room and current periodicals. The fourth stack level is used as a reading area and no books are shelved there. Work quarters are cramped and inefficient. Two entrances to the building were provided for ease of access, but since there is no adequate control at either door, loss of library materials has been a constant problem.

The staff consists of three professional librarians and four clerks, plus student assistants. The library's budget for 1965-66 was $81,248, of which $34,000 was spent on library materials. According to the librarian's annual report for 1965-66 there were 65,257 volumes in the library's collection; 4,567 volumes had been added during the year. The library receives currently around 780 periodical titles.

The library has been forced to rely extensively on interlibrary loans to satisfy the demands for materials arising from the growth of graduate work and research. Although there is informal cooperation on loans and library use with other schools in Potsdam and Canton, Clarkson has hesitated to encourage extensive use of its library by others. A new library is planned for the new campus, and there is apparently an understanding on the part of the administration that a greatly expanded library program is essential. Until such time as a new library is completed, the staff expanded, and the library collection increased to the point where it can handle local needs, the role the Clarkson library can play in a regional program will be limited. Its periodical holdings in science and technology could potentially be a major area resource but such developments will have to wait until a new library is built and problems of budget and staffing are resolved.

State University College at Potsdam

Potsdam State College, now one of the ten colleges of arts and sciences in the State University of New York, had its origin in the St. Lawrence Academy which was opened in 1816. It became a unit of the State University of New York in 1948 and in 1962 was changed from a teachers college to a liberal arts college. A $23,000,000 development program will add 15 new buildings by 1970 to accommodate a projected enrollment of 3,000 students. The school offers the Bachelor of Arts degree with majors in 14 subject areas, the Bachelor of Science in music education, and the Master of Science in education. Programs leading to the masters degree in several other areas have been proposed and the graduate program seems likely to expand rapidly.

The library is now located in a wing of the Administration Building but increases in staff and in books since 1962 have made these quarters wholly inadequate. A new library now under construction is expected to be ready for occupancy in November, 1966. Designed to accommodate 200,000 books and seat 900 readers, it will be filled to capacity within five years at present growth rates, and preliminary discussions have been held concerning a future replacement for it. If SUNY projections of library collections up to 500,000 volumes for its colleges of arts and sciences are implemented, this replacement building will be needed within a few years.

The change to liberal arts college status has brought a major increase in funds for the library. In 1966-67 the book budget alone, around $175,000, will exceed the total library budget for 1963-64. The increased money available is reflected in the growth of the collection. At the end of 1964-65 the library reported 76,831 volumes. On March 31, 1966, the end of the fiscal year, the librarian reported the figure as 91,925. The library is currently adding from 3-4,000 cataloged volumes a month. There is an ambitious program to increase holdings in periodicals, both current and back files, and the acquisitions policy is definitely aimed at creating a quality collection capable of supporting not only undergraduate instructional needs but graduate education and research as well. As of October 1, 1966, there was budgetary provision for 20 professional librarians and 22 clerks.

The College endorses an open door policy on library use and allows area residents, including students and faculty from nearby colleges, to use the library as necessary. It also carries on an active interlibrary loan service, in 1965-66 borrowing 378 books for student or faculty use. The library has teletype equipment and frequently relays requests to the New York State Library. Considerable emphasis is placed on reference service, and a professional staff member is on duty in the reference room at all times when the library is open. The reference collection is extensive and well-chosen, though not so rich in older materials as St. Lawrence.

The Crane Music Library, housed in Crane Hall, the music building, is part of the college library but has some semi-independent characteristics, including its own individual classification scheme. Until recently, the main emphasis of the library has been on providing materials to supplement classroom instruction, but research materials are becoming increasingly necessary as the graduate program develops. As of March 31, 1966, there were on hand 5,924 books, pamphlets, and bound periodicals; 5,782 cataloged music scores; 5,500 records; and other miscellaneous items bringing total holdings to 22,248 items.

The transformation of the Potsdam State College Library from a teachers' college collection into a general academic library is far from complete. It will be several years before it is possible to judge how well this library could handle a major role in a cooperative regional system. If present growth continues, and present policies do not change, it seems reasonable to assume that this library would be a likely choice for a prominent role, both in leadership and in resources. Although area residents, including even some librarians, still think of the school as strictly a teachers' college, the enormous expansion of staff, students, and facilities seems to indicate that it will soon become an outstanding general liberal arts school with graduate programs in selected areas and an important extension and public service role.

State University College at Plattsburgh

Plattsburgh State College had its origin in an academy founded in 1811, and in 1948, after a number of changes over more than a century of development, became a unit of the State University of New York. In 1959 it became a College of Education and, in 1961, a State University College. From its modest beginning as a teacher training institution, the school has grown into a college of liberal arts and sciences with a broadening program of undergraduate offerings and the beginnings of a program of graduate study. The enrollment in the 1965 fall semester was 3,122, including part-time students, and the number of students has been increasing rapidly. The projected enrollment of 3,400 for 1970 is likely to be reached long before then.

The College is now involved in a $21,000,000 building program to make adequate facilities available for its new role. Plans for expansion involve establishing several additional extension centers. In the winter of 1966, an experimental residential college was established at the Miner Institute in Chazy. The College currently maintains extension centers at the Plattsburgh Air Base and at the Adirondack Community College at Hudson Falls.

The Benjamin F. Feinberg Library is housed in a modern brick building completed in 1961. The library has two floors for reading rooms, stacks, and offices. A separate reserve book reading room is maintained; listening and microfilm reading facilities are available; and, in addition to the reading areas throughout the building, there is an informal browsing room for recreational reading. The building was planned for 100,000 volumes and 600 readers, and the capacity has now almost been reached. Plans are already under way for a new building and since Plattsburgh, like Potsdam, may expect a library collection of up to 500,000 volumes, the new building will need to be much larger than anyone would have imagined.

The library staff has eight full-time and two half-time professional librarians, plus four assistants who are working under a trainee program. Twelve clerks and 25 student assistants complete the staff. In 1963-64 the library had an operating budget of $137,368, of which $48,917 was spent on books and other library materials. In 1964-65 the amount available for purchase of books, periodicals, and supplies was $133,750. Exact figures are not available for the academic year 1965-66, but here, as in Potsdam, the State University of New York has made large sums of money available to build up its library resources. The entire scale of operation has been accelerated since the school was designated as a liberal arts college, and an even larger budget is expected for 1966-67.

Since large amounts of money have been poured into the book fund, the collection has increased rapidly. In 1963-64 the library had 87,724 volumes and received 603 periodical titles. On January 31, 1966, the book stock was 105,327 volumes, of which 10,811 volumes were bound periodicals. Because the library was completely destroyed by fire in 1929, there are still some gaps in the collection, especially in the periodical holdings, and the library has been trying to build up its back files.

Use of the library's facilities is generally restricted to members of the college community. Although teachers and professional people from the area are granted permission to use the collection, most non-college users are asked to obtain materials through the Plattsburgh Public Library. The library gets little use by the business or industrial concerns in the area, and the collection of medical literature is not used by the doctors. The library's policy on use is more restrictive than that found in other academic libraries in the North Country.

Interlibrary loan is used to supplement the library's facilities. From April, 1965, to January, 1966, the library had 982 interlibrary loan requests. Requests are sent to the State Library first; but the Library feels that without teletype communication the service is slow. Teletype is available at the Clinton-Essex-Franklin System headquarters but the college library has not used it often.

The Plattsburgh State College Library is the chief resource in the eastern half of the North Country area. If the present library growth rate continues, it will, more than ever, be the logical choice to play a major role in a reference and research system for the area. Although some responsibilities could be assigned to the Clinton-Essex-Franklin System in Plattsburgh, only the Plattsburgh State College Library is likely to be acquiring the type of research resources that are to be emphasized in the 3-R Plan. Furthermore, the distance that separates Plattsburgh from the library resources in the Potsdam-Canton area seems to indicate that perhaps no single center could serve as a resource center for the whole area, but that at least two such centers would be needed.

Other Libraries

Institutional libraries.--There are four state correction, health, and mental hygiene institutions in the North Country--Dannemora State Hospital, Clinton State Prison, and Ray Brook Tuberculosis Hospital in Clinton County, and the St. Lawrence State Hospital in St. Lawrence County. All provide reading collections of moderate size for patients or inmates. In addition, the Ray Brook Tuberculosis Hospital has a technical library of 2,558 volumes and the St. Lawrence State Hospital a technical collection of 5,558 volumes for staff use (1965 figures).

Law libraries.--Aside from working collections in private law offices in the larger cities, there are two publicly supported law libraries in the North Country--the Supreme Court Law Library in Plattsburgh (10,000 volumes) and the Watertown Law Library in Watertown (17,000 volumes). Only the former was visited during this study. It is operated by the Bar Association, is open 10-5 daily, and is designed primarily for use by Bar Association members and by the courts. It may also be used by qualified members of the general public and receives some use by local college students and personnel from the nearby Plattsburgh Air Base. There is no professional librarian in charge.

Historical collections.--Most of the larger public and academic libraries have collections of local and New York history. Those at St. Lawrence University, the Flower Memorial Library of Watertown, the Ogdensburg Public Library and Remington Art Memorial, the Saranac Lake Public Library, and the Plattsburgh State College are the best. The New York collection at Plattsburgh State College is the only historical collection in the area with full-time professional attention. The Adirondack Museum at Blue Mountain Lake, although not a library, does have collections of books and manuscripts relating to the area.

Industrial libraries.--There are no real special libraries serving industry in the North Country. Such resources as do exist are little more than office or laboratory collections, useful to the sponsoring organizations but not extensive enough to warrant consideration in a study of area library research resources.

Medical and nursing libraries.--The larger hospitals in the area, and especially those that also have schools of nursing, provide medical collections of moderate size for staff use. These collections are seldom under full-time professional supervision and consist essentially of standard medical reference books, current journals in the specialties represented at the hospital, and text materials to support nursing education. Total area medical resources are meager and considerable reliance is placed on interlibrary loans from the New York State Library, National Library of Medicine, American Hospital Association, and medical school libraries in Albany, Syracuse, and Burlington. The best collections are found at Champlain Hospital in Plattsburgh, St. Lawrence State Hospital and Hepburn Hospital in Ogdensburg, and Mercy Hospital and House of the Good Samaritan in Watertown.

CHAPTER III

FACULTY QUESTIONNAIRES ON LIBRARY USE

Higher education is perhaps the largest industry in the North Country, and faculty members at institutions of higher education constitute probably the largest distinct group of persons who make extensive use of libraries and library materials as part of their regular work. Faculty members also make up the largest group of persons who need and actively seek access to library materials on the research level, both to enrich their teaching and for their own research. For these reasons, a questionnaire was developed to secure information on faculty use of libraries and of research materials and to obtain suggestions from the faculty about improvements in library services and research resources which they thought would be desirable.[1]

Faculty lists were obtained from the State University Colleges at Potsdam and at Plattsburgh, from St. Lawrence University, and from Clarkson College of Technology; questionnaires were mailed directly to these faculty members and were returned to the Center. The number of questionnaires sent and returned is shown in Table 2.[2]

TABLE 2

FACULTY QUESTIONNAIRES SENT AND RETURNED

	SLU	CCT	PDS	PBS
Number sent	110	161	196	213
Number returned	85	112	144	154
Percent returned	77%	70%	73%	72%

Of the total of 680 questionnaires sent to faculty at the four-year schools, 495 were returned in time to be used in the analysis. The percentage of returns varied from 70 percent at Clarkson to 77 percent at St. Lawrence. Of the 495 returns, 121 were from professors, 133 from associate professors, 173 from assistant professors, and 68 from instructors, lecturers, and research associates. The percentage of respondents in various ranks did not vary much from school to school, as indicated by Table 3, except that at Clarkson there is a somewhat greater proportion of people at instructor and research associate level.

The distribution of respondents by general subject area (humanities, social sciences, and sciences) is somewhat more varied, reflecting some basic differences in the emphases at the four schools (Table 4). The heavy commitment of faculty to science and engineering at Clarkson and the continuing emphasis on the social sciences (chiefly education) at Plattsburgh, and to a somewhat lesser extent at Potsdam, are evident.

TABLE 3

FACULTY RANK OF RESPONDENTS

Rank	SLU	CCT	PDS	PBS
Professor	22%	22%	31%	21%
Associate Professor	28	25	28	26
Assistant Professor	37	30	31	42
Instructor/Other	13	23	10	11

TABLE 4

MAJOR AREAS OF FACULTY RESPONDENTS

Area	SLU	CCT	PDS	PBS
Humanities	38%	12%	39%	18%
Social Sciences	40	14	44	49
Sciences	22	70	17	32
No response	0	4	0	1

Faculty members are making considerable use of their library collections. The number of respondents who report using their libraries more than once a week ranges from 32 percent at Clarkson to 46 percent at Potsdam. Another 16 to 31 percent report using libraries about once a week (Table 5). Although they make heavy use of their libraries, the respondents do not rate very highly the book collections available at their institutions in their own areas of specialization. The bulk of the respondents judge the available collection to be either "good" or "fair" (Table 6). In most cases the percent of respondents rating the collections as "poor" is greater than that rating them as "excellent," especially at Clarkson where 35 percent of faculty respondents call the collections in their own specialties "poor."

TABLE 5

FACULTY USE OF LOCAL LIBRARY

(Source: Question 1, App. I)

Frequency of Use	SLU	CCT	PDS	PBS
More than once a week	33%	32%	46%	33%
About once a week	31	21	16	27
A few times a month	21	22	22	20
About once a month	5	12	10	12
Less frequently	10	9	6	7
No response	0	4	0	1

TABLE 6

FACULTY RATING OF LOCAL BOOK COLLECTION

(Source: Question 2, App. I)

Rating	SLU	CCT	PDS	PBS
Excellent	11%	3%	8%	6%
Good	40	19	40	49
Fair	40	39	38	29
Poor	8	35	13	16
No response	1	4	1	0

Use of Other Resources

Faculty members depend heavily on a variety of library resources other than their own college or university library in carrying out their teaching and research (Table 7). Well over 90 percent of respondents at all schools make use of their own personal subscriptions and libraries. Heavy use is also reported, especially at Clarkson, of the libraries of friends and colleagues. Roughly one-third of the respondents use collections in departments or in research units. Despite the relatively limited book resources of public libraries in the area, from 14 to 23 percent of faculty respondents say that they use public library resources regularly in support of their research and teaching.

TABLE 7

USE OF OTHER RESOURCES BY FACULTY

(Source: Question 3, App. I)

Type of Resources Used	SLU	CCT	PDS	PBS
Your personal library or subscriptions	93%	91%	95%	98%
Libraries of friends and colleagues	22	54	39	31
Collections in departments or research units	36	17	37	27
Public libraries	15	14	23	23
Private collections	6	4	8	4
Other	12	29	19	17
No response	0	4	0	1

Among other types of resources used by North Country faculty members, interlibrary loan takes first place. A number of faculty respondents indicate that they regularly try to include working visits to libraries in major cities here and abroad as part of their travel, both business and pleasure. Some report that they carry on extensive personal correspondence to secure article reprints, government publications, and material from business and industry. Some personally borrow or rent films to supplement their teaching.

A few regularly purchase microfilm material from other libraries for their personal use.

All of the four libraries carry on an active service in interlibrary borrowing, not only for faculty but also for students. This necessity for going outside the region to borrow material from other libraries is reflected in the very high number of respondents who say that their library has borrowed material for their use from other libraries (Table 8). The number of faculty reporting such transactions goes as high as 67 percent at Clarkson.

TABLE 8

FACULTY USE OF INTERLIBRARY LOAN

(Source: Question 6, App. I)

	SLU	CCT	PDS	PBS
Yes	58%	67%	56%	54%
No	40	26	40	42
No response	2	7	4	4

Not all of the use of other libraries by faculty members comes through formal interlibrary loan. Most of the academic libraries in the North Country are freely open to use by faculty members from other schools, and most will make direct loans in person to such visitors. As Table 9 shows, however, some faculty members range much more widely in seeking out direct use of library resources elsewhere. Nearly one in ten of the respondents, for instance, reports that he has personally visited the New York State Library at Albany to obtain materials not available locally which he needed for research. Faculty at Plattsburgh appear to do more of such visiting, taking advantage of the relatively easy access not only to Albany but to the University of Vermont in Burlington and McGill University in Montreal. Syracuse University also is visited frequently. The eight libraries included in the question are by no means the only ones visited by faculty members in search of materials.

TABLE 9

USE OF OTHER LIBRARIES BY FACULTY

(Source: Question 5, App. I)

Library Visited	SLU	CCT	PDS	PBS	Total
Syracuse University	9	9	3	6	27
SUNY at Albany	0	2	7	9	18
N Y State Library	7	6	11	24	48
University of Ottawa	0	4	2	2	8
McGill University	3	2	6	21	32
University of Montreal	0	1	2	8	11
University of Vermont	1	0	2	18	21
Cornell University	6	6	7	9	28
Other	16	19	50	31	71
None	50	75	83	73	271

Additional libraries mentioned more than once included the New York Public Library, Columbia University, Harvard, Yale, Boston Public Library, National Research Council Library at Ottawa, Library of Congress, Cornell, National Library of Medicine, and Rensselaer Polytechnic Institute.

A great many other institutions were mentioned by respondents as places where they had personally gone to use libraries. Some additional comments from the responses will illustrate the distances which these faculty members go in search of library materials:

> I have only been here three months but plan to visit Syracuse, Ottawa, and Montreal to determine which will be of most use in my research.
> (Clarkson)

> I have used the Library of Congress, Sibley Music Library (Rochester), and the New York Public Library Music Division.
> (Potsdam)

> The faculty at Penn. State have been kind enough to send books at my request.
> (Plattsburgh)

> Have used National Archives at Ottawa, National Archives in Washington, Library of Congress.
> (Plattsburgh)

> When I attend meetings or get to large cities or universities I frequently browse in local libraries.
> (Clarkson)

Impediments to Faculty Research

At Clarkson and at Potsdam over half of the respondents report that they are handicapped in their research by lack of adequate and convenient library resources, while at St. Lawrence and Plattsburgh less than half report that their research is so hampered (Table 10). One may choose to regard this as an indication that the libraries are better able to supply research materials at St. Lawrence and Plattsburgh or as an indication that a greater stress on research activity at Clarkson and Potsdam makes faculty members more aware of the shortcomings of their library collections. Observations made during this survey favor the latter interpretation, as do the comments supplied in elaboration of their answers by those who stated that their research was handicapped.

TABLE 10

EFFECT OF LIMITED LIBRARY RESOURCES ON FACULTY RESEARCH

(Source: Question 4, App. I)

	SLU	CCT	PDS	PBS
Yes	35%	56%	67%	42%
No	64	39	32	55
No response	1	5	1	3

At Plattsburgh, respondents complain of such things as limited back files of periodicals (many mentions of this); lack of material in Asian studies; lack of British newspapers, documents, and periodicals; limited bibliographical resources; poor Soviet materials; few primary source materials in modern languages; limited collections of medical history, music scores, science abstracting journals, maps, transactions of learned societies, etc. Clearly many of these respondents have grown accustomed to using larger research collections, presumably during graduate work or on previous jobs, and are frustrated by the limitations of a small teachers' college library that is just beginning to assume responsibility for supplying collections at a research level.

At St. Lawrence, various faculty members report that their research is hampered by a lack of specialized periodicals and, to a lesser extent, a lack of reference books; by the absence of primary source materials for nineteenth century studies and for modern area studies (Africa, South America); by a lack of newspapers and periodicals of the nineteenth century; by a lack of technical reports; and by limited provision of periodicals in modern foreign languages. The reasonable limits of a liberal arts college library are recognized, however; one respondent needs "Old Church Slavonic mss., but I would not expect St. Lawrence to have them."

Respondents at Potsdam ask for access to a more complete periodical collection, for larger holdings in government documents, facsimile or microfilm editions of primary source materials, reference tools in chemistry, physics, acoustics, philology, criminology, etc. Many of the complaints come from faculty who are now completing graduate studies elsewhere and need access to materials for dissertations. A number of gaps in research materials are mentioned in the field of music, although this is one of the strong subjects at Potsdam.

At Clarkson, real frustration is reported by many respondents in attempting to carry on research when the periodical collection is limited and many files are fragmentary. The deficiencies of interlibrary loan as a device for securing material needed for research are mentioned many times. Typical comments at Clarkson:

> Our library has very few complete serial publications. Missing back files is one of our most serious defects.
>
> General lack of depth in so far as very current references are concerned.
>
> In the area of literature, not even the standard works are available.
>
> Our back issues and reference book holdings leave much to be desired. Our current subscriptions are barely adequate.

The impression gained from the Clarkson questionnaires is that an ambitious research program and a growing amount of graduate work have far outstripped the resources of the college library and that the need for improved access to research materials is critical.

The Effect on Teaching

The lack of adequate library resources at all of the schools, and the absence of convenient access regionally to complete research library resources, not only impedes research by faculty members, it also directly affects the teaching methods used by many. Table 11 shows that roughly half of the respondents at Clarkson and Plattsburgh, plus somewhat lesser percentages at the other two schools, feel that their teaching methods are affected by a lack of library resources. At St. Lawrence, respondents call attention especially to the lack of specialized periodicals, the difficulty of teaching the use of the literature in various special subjects, the lack of enough multiple copies for class assigned readings, a lack of enough primary materials for good research papers, and the fact that latest editions of standard works are frequently missing.

TABLE 11

EFFECT OF LIMITED LIBRARY RESOURCES ON FACULTY TEACHING

(Source: Question 8, App. I)

	SLU	CCT	PDS	PBS
Yes	40%	49%	44%	51%
No	55	36	50	43
No response	4	11	2	5
Not applicable	1	4	4	1

Comments at Clarkson indicate that the seminar method of teaching is impossible there due to lack of library resources, that thesis study is impaired, that it is difficult to assign general background reading, that students must go elsewhere for research materials, that there are seldom enough duplicate copies of texts to make assigned readings possible, that the periodical collection is so limited that locating references is impossible, and that faculty members must frequently depend on their own collections to supplement teaching materials.

At the two state colleges, about half of the respondents supplied comments to explain how their teaching methods were affected by lack of library resources. At Potsdam the complaints include large classes and too few library copies of books; lack of enough periodical files; not enough current films, slides, and other A-V materials; slowness of the library in processing materials needed for class; necessity for lectures to replace discussion since assigned readings aren't possible; difficulty in assigning research papers; and dependence on paperbacks for collateral reading.

At Plattsburgh, the effects of library shortcomings on teaching methods are similar. There are occasional long delays in getting books needed for classes; there is a dearth of back issues of periodicals of all types; it is difficult to depend on independent study and library research; seminar teaching is impossible; there is a lack of enough programmed material, filmstrips, recordings, films, music scores; there is a lack of duplicate copies of texts, basic monographs, and periodicals; teachers are forced to depend too much on secondary sources.

It is apparent from the comments on this question that a rather large proportion of faculty members at all schools do feel that the lack of adequate library resources available to them and to their students has affected their teaching. Many have made adjustments and have stayed largely with the familiar lecture-textbook method of teaching. Others, who want to use methods involving independent study, library research, use of audio-visual resources and the like, have often found library deficiencies a source of frustration. At all of the schools, graduate work is carried on, and many of the respondents note that while they can overcome the limitations of library shortcomings to some extent in undergraduate teaching, improved library resources are required if quality graduate work is to be carried on.

Impact of Graduate Work

At Clarkson, Potsdam, and Plattsburgh, and to a lesser extent at St. Lawrence, faculty members report that there are plans for new courses in their departments which will require stronger library resources than are presently available (Table 12). Nearly nine out of ten respondents at the two state schools report that this is true. Both of these schools are in a period of rapid buildup as they complete the change from teachers' colleges to liberal arts schools. At Clarkson, an active development program includes expansion in a number of academic fields. At all of the schools except St. Lawrence, the respondents state overwhelmingly that there are plans to develop or strengthen their departments for graduate studies (Table 13) and many of them, especially at Clarkson and Potsdam, feel that graduate study in their fields, on the scale planned, is restricted or made impossible by the lack of suitable library resources (Table 14).

TABLE 12

PLANS FOR NEW COURSES REQUIRING LIBRARY RESOURCES

(Source: Question 10, App. I)

	SLU	CCT	PDS	PBS
Yes	54	74	109	117
No	21	13	15	18
No response	9	15	16	9
Not applicable	1	10	4	10

TABLE 13

PLANS FOR DEVELOPMENT OF GRADUATE STUDIES

(Source: Question 11, App. I)

	SLU	CCT	PDS	PBS
Yes	36	82	114	119
No	42	16	21	17
No response	3	11	7	12
Not applicable	4	3	2	6

The general impression gained from examining the response to these last three questions is that faculty members at all of the schools except St. Lawrence welcome the development of graduate work but are concerned that the introduction of graduate courses is proceeding faster than the resources of the schools and of the area warrant. Many, while giving due credit to the efforts currently being made, at least in the two state schools, to build up the library collection rapidly, recognize that available library resources in the area, now and in the foreseeable future, are simply not adequate to support high quality graduate study and research.

TABLE 14

EFFECT OF LIMITED LIBRARY RESOURCES ON GRADUATE STUDIES

(Source: Question 12, App. I)

	SLU	CCT	PDS	PBS
Yes	29	54	65	61
No	23	19	35	41
No response	15	22	26	32
Not applicable	18	17	18	20

At St. Lawrence, the situation differs; graduate work is a minor part of both present offerings and future planning. Many faculty members do not want to see graduate work expanded in what has traditionally been a liberal arts college. They are, however, concerned that the library, though by and large adequate for current needs, should grow and develop at an accelerated rate to maintain the level of undergraduate study.

Best Location for a Research Library

The final question answered by the faculty members differs from the rest in that it asked not about their own personal use of libraries and library resources but about their opinions on where a state-aided research library facility in the North Country might best be located to serve the needs of the scholars and researchers of the area.[3] They were asked to choose the most suitable location from a list of the six largest towns in the area or to indicate other towns which they thought should be considered. Table 15 shows the results.

TABLE 15

PREFERRED LOCATIONS FOR REFERENCE AND RESEARCH LIBRARY

(Source: Question 15, App. I)

	SLU	CCT	PDS	PBS	Total
Potsdam	35	100	132	34	301
Canton	65	18	21	8	112
Plattsburgh	0	1	1	107	109
Watertown	1	1	2	1	5
Massena	2	0	5	5	12
Ogdensburg	0	0	2	1	3
Other	0	0	0	5	5
No response	3	5	3	15	26

As might be expected, faculty members tended to answer this question somewhat in terms of their own personal convenience. Most respondents naturally voted for the town in which they lived or were employed. However, from the tally of checkmarks alone, it is apparent that a sizable number of faculty attempted to give their best and most objective advice. For instance, it is evident that many faculty members at Plattsburgh and St. Lawrence, recognizing that Potsdam is, by and large, the geographical and research center of the area and the logical site for such a library facility, chose it over their own towns. Despite the long distance from Plattsburgh to Potsdam, 34 of the Plattsburgh respondents called Potsdam the best choice while another eight voted for Canton. The St. Lawrence faculty would prefer Canton, of course, but one in three said that Potsdam would be better. Of the faculty members at Clarkson and Potsdam, a small percentage would prefer Canton over their own town, chiefly because they recognize that it already has the excellent St. Lawrence Library on which to build.

Nearly every faculty member answering this question went on to make comments, as requested, about his choice of location. A reading of these hundreds of comments provides interesting insights into the attitudes of faculty members toward other academic institutions, toward libraries, and toward life in general in the North Country. These comments provide the background for the paragraphs which follow.

There is general recognition (with some limitations in Plattsburgh) that the Canton-Potsdam area, with three two-year schools, three four-year colleges, and a growing commitment to graduate education, is not only the geographic center but also the academic and research center of the North Country and that this is likely to become even more pronounced in the future. Increasingly, the center is shifting to Potsdam from Canton as Clarkson and Potsdam State grow in size and stature and in emphasis on graduate study and research.

In this central Canton-Potsdam area live many of the people who would be most likely to make use of research library facilities and services. The minimal amount of industrial and research-based library demand that arises in such cities as Massena would not warrant the building of a general research collection there although personnel from such industries and labs would very likely find great use for a more complete research collection somewhere in the area which they could call on as needed. Ogdensburg is no longer the focal point for the area that it once was, and there would be little point in considering it as the location of research resources to serve the area. Watertown is really too far away from the rest of the North Country to be a good location for a central facility nor does it have a large resident group of research-oriented people.

It is important to build on existing resources, and the faculty respondents recognize that within a ten-mile radius in the Canton-Potsdam area are concentrated not only most of the important library resources but also most of the library staff, services, and potential users of advanced reference and research library facilities. The present availability of good library buildings and staff is not overlooked in faculty comments on where expanded research library facilities should go. Especially at St. Lawrence and Potsdam, the competence of present library staff to handle such added roles was commented on favorably.

Within the large six-county North Country area, subject only to certain constraints such as winter weather and bad roads, the population is fairly mobile. Public transportation is very poor but people are accustomed to driving considerable distances to use various facilities. The same situation would hold for a research library. The respondents on the whole recognize, however, that it would be illogical to establish any such facility at either Plattsburgh or Watertown, both of which are at extreme ends of the area to be served. Potsdam's central location on two major highways was frequently mentioned as a good reason to choose this location for a central library facility. Also, the extensive facilities for research being added at Clarkson and at Potsdam State, plus the existence of strong specialties like the Crane Music School, were cited as factors in attracting more and more research-oriented people to this general area.

There is some recognition also that no single location is ideal and that some division of resources might be the answer. For instance, one respondent comments that:

> A technical library would be of most use in Potsdam, and a library for humanities would best be placed in Canton. A general research library would be well located in either town. . . . I don't know who would be using a facility in Watertown, Massena, or Ogdensburg.

The feeling that there is no single location central to the whole area is most pronounced among the Plattsburgh respondents. They tend to see the North Country as bi-polarized, with Plattsburgh as the hub of one area and Canton-Potsdam as the hub of the other. Also, their idea of the region to be served by such a research library facility reaches out to include the neighboring portions of Vermont and even extends into Quebec. In many respects, Plattsburgh is accessible to a greater area than is Potsdam and is much better served by public transportation. Although they lack the advantage of having other fair-sized academic libraries nearby, as is the case in the Potsdam area, the faculty at Plattsburgh actually has somewhat easier access to large collections in Albany, Burlington, and Montreal than do faculty at the more centrally-located (in North Country terms) schools in the Canton-Potsdam area.

The isolation of the North Country from large metropolitan centers, the difficulties of winter travel, and the unreasonableness of expecting anyone to make a four or five hour drive to use even a good library are pointed out in many comments made by faculty at all four schools. No matter how logically appealing it is to have a network set up by which scholars have direct access to research collections in Syracuse, Albany, or even in Montreal or Ottawa, the inconvenience of long trips will limit the usefulness of such on-premises use. Comments from Plattsburgh faculty are typical:

> Plattsburgh is virtually isolated during the winter with no other facilities within 100 miles.
>
> A four hour round trip to these locations from Plattsburgh does not stimulate use of reference materials when needed.
>
> Travel facilities make it [Plattsburgh] more suitable, especially in the long winter, for visiting researchers who can use public travel.
>
> It is almost impossible for one to make a ten hour journey [to Syracuse] for material.
>
> Central to what? None of the towns are central nor easily accessible to the other places.

In view of developments in facsimile transmission, long distance Xerography, computer-based information storage and retrieval systems, and other technological devices affecting research libraries, there may be some question at this point as to whether the actual location of a research facility to serve the North Country is really important and, more basically, whether a regional facility of any type is called for rather than improved means of access to all the resources of existing research collections regardless of location in the state. Such questions have been very much in the minds of the librarians who make up the North Country Reference and Research Resources Council and need to be considered seriously in a survey of this kind. Yet, there are only a few comments in the faculty responses to this question about location which allude to various communications techniques which might make location unimportant.

Oddly enough, it was only at Plattsburgh that such comments showed up on the responses although all of the schools have had committees working on the general problem of electronic data processing and computer facilities and many faculty members must be at least generally aware of the problems. One faculty member wonders why the questions focus on the North Country alone and why the state should seek to establish an already outmoded facility. The efforts could better be directed, he thinks, to establishing linked resources in the state through the use of a computer-based union catalog supplemented by facsimile reproduction and transmission. Another man suggests that with appropriate communication facilities the physical location of the research collection is unimportant. Efforts should be made, he says, to strengthen the holdings at Albany and make them available statewide by electronic display. Another man, less sanguine, mentions that "the electronic wonders that we are always promised may make distance no factor in the future use of libraries."

Despite such expectations, another man points out that for certain fields one needs to examine a variety of documents at leisure. He speaks for many, especially those in the humanities, who are inclined to feel that, to be really useful, resources must be readily available, the closer and more accessible the better. While modern communications techniques might make this kind of physical access less necessary, it will not make it less desirable.

References

[1] This questionnaire is reproduced as Appendix I.

[2] Here, as throughout this report, the names of institutions are abbreviated as follows: St. Lawrence University--SLU; Clarkson College of Technology--CCT; Potsdam State College--PDS; Plattsburgh State College--PBS.

[3] Some concern was expressed by the New York State Library that this question might be misunderstood. There was never any intention under the 3-R Plan to create new state-aided research libraries but rather to build up cooperative systems which would be based on geographically well-located existing collections.

CHAPTER IV

RESOURCES: REFERENCE BOOKS

In order to get some indication of the general strength in reference book holdings in the major North Country libraries which might have a role in any developing 3-R system, a checklist of 334 reference titles was prepared, based on Barton's Reference Books.[1] Those reference titles appearing in new editions since 1962 were noted and the editions used in the checklist represent those published through 1965.

The checklist, like Miss Barton's book, is "by no means confined to the popular reference books available in all libraries, but contains many of the more scholarly titles frequently consulted in large libraries."[2] In addition, it is slanted to include a larger proportion of indexes and bibliographies, since these would ultimately be most useful in any efforts toward coordinating reference services and the use of resources over the entire area. The focus of the list is on locating and finding bibliographical information rather than on locating information as such. About one-third of the list is made up of reference books which are general in scope, while the rest of the list is primarily subject-oriented but still largely bibliographical in nature.

The checklist was used in the four major academic libraries--St. Lawrence University, Clarkson College, Potsdam State College, Plattsburgh State College--and in the North Country Library System (headquarters collection only) and the Clinton-Essex-Franklin Library System (including the Plattsburgh Public Library). The actual checking was not done by the staff of the libraries involved, but by a librarian from the area who was hired on a consulting basis by the Center, although some later rechecking was done by a member of the survey staff. They visited all the libraries and ascertained, using the normal means available to any inquirer, whether or not the library in question owned the titles on the list. Members of the library staffs were available as necessary to answer questions and help locate entries. Although this procedure may have resulted in a few absolute errors (i.e., certain titles might be owned by the library but not entered in the catalog), it can be regarded as an accurate reflection of what a well-trained and diligent user of libraries would find in the normal course of visiting and using these libraries.

Before discussing the results of the checklist survey, some general description of the organization for reference service at the six libraries is in order. Also, some observations should be made about the card catalogs in these libraries as finding tools for reference books.

The Public Library Systems

The reference function of the two public library systems is distinctive because these headquarters libraries serve their member libraries directly, but they serve the general public only indirectly. This fact has a substantial effect on the availability of reference material and services. In neither case does the general public use the system's card catalog or make use of reference materials on the premises. Library systems in New York State are required to maintain a union catalog of member library holdings, but in most systems, including these two, little effort has been made to provide retrospective coverage of reference titles or other books that were in member libraries before the establishment of the system.

Clinton-Essex-Franklin Library System.--From its inception, the Clinton-Essex-Franklin Library System has kept a record on slips of all books ordered through the System headquarters or processed by them. This file, plus a shelflist, shows those reference books added to headquarters or purchased for member libraries. Since the System headquarters is located in the Plattsburgh Public Library building, no effort is made to have other than the few reference tools essential for library operations available in the headquarters collection itself. The real reference collection is upstairs in the Plattsburgh Public Library, and the System staff member in charge of reference and interlibrary loan makes use of this collection.

The Plattsburgh Public Library, although it is the central library of the System, does not have a full-time reference librarian. An added disadvantage is that the card catalog in the Public Library contains cards only for its own holdings plus those books purchased for it by the System under the state aid program. A patron looking for a reference book owned by the System but not by the Public Library will not find a card for it in the public catalog but must make his request known to a staff member from the Public Library who would then go downstairs and check the System catalog or ask a System librarian to do it. Since many of the books on the reference checklist were published before the System was started, and since some are held by the System but are not in the Plattsburgh Public Library, it is necessary to check both catalogs to ascertain the complete holdings available--an easy matter for us but not so easy for the public.

North Country Library System.--In the case of the North Country Library System, only the card catalog at System headquarters was used in ascertaining checklist holdings. No effort was made to check the holdings of either of the two central libraries (Watertown and Ogdensburg) for those items not found in the System's union catalog. Since the North Country Library System is the oldest in New York State, the number of important reference titles owned by either central library, but unrecorded because they ante-date the System, is small.

The North Country System headquarters has two reference librarians whose primary responsibilities are to member libraries instead of the general public. The catalog at headquarters contains cards not only for the headquarters collection, but also for books purchased through the state aid program and deposited in either of the central libraries. However, in the case of serials (which involves some of the titles on the checklist), it is necessary also to check the shelflist for holdings. As an added convenience to users, each central library catalog has cards for titles purchased by the System and through the state aid program, whether or not a copy is in the particular library. Thus each central library, plus headquarters, has the semblance of a union catalog.

The Academic Libraries

In general, each of the four academic libraries tries to provide a well-rounded general reference collection. Clarkson, as noted, does have certain limitations because of its emphasis on science and technology, but even here some effort is made to provide essential reference titles in all subject areas. The reference collections inevitably reflect the curricular emphases of the schools, and if an overall criticism of the four reference collections as general reference collections were to be made, it might be that they fail to some extent to provide adequate coverage of some of the current, perhaps ephemeral, types of reference aids that one finds in a good general reference collection in a larger public library for use by the general adult public as distinct from the student--for instance, travel guides and information, consumer information, various directories including large collections of phone books, general business and investment materials, current biographical data, etc.

A second and perhaps more serious fault is that these academic libraries do not always have well-developed programs of reference service to go along with the reference collection, nor are the staffs large enough to provide trained reference librarians who are available at all times the library is open to assist readers, in person or by telephone, with information. While at least three of the libraries do have a reference desk staffed during most of the day, one does get the impression that a more active program of assistance to readers should be developed at some of the libraries.

Three of the four major academic libraries now participate in an exchange of selected main entry cards for new titles, thus adding some of the features of a union list to their public catalogs. For several years Clarkson and St. Lawrence have exchanged main entry cards stamped with location symbols to be filed in each other's catalogs. One year ago Potsdam State College joined in this cooperative endeavor. The Agricultural and Technical College at Canton has recently joined the exchange. If such an exchange is continued, and perhaps expanded, it will in time become a very valuable feature for the user who is seeking to locate materials available for use at a nearby institution.

St. Lawrence University.--The card catalog at St. Lawrence is easy to use and is a reasonably complete guide to the holdings of the library. In most cases, main entry cards for serial publications note holdings. Duplicate order slips are filed for books on order. For a few items, it is necessary to consult periodical records on another floor or to seek help from a staff member. Some reference tools which are documents are difficult to locate. The library owns the British Museum Catalog, but there are no cards for it in the catalog. St. Lawrence, and the three other libraries as well, own the National Union Catalog, U.S. Catalog, and Monthly Catalog but do not include cards for these in their public catalogs. The bulk of the reference collection of St. Lawrence is shelved in the large reading room off the lobby. In the lobby itself, there is a reference desk and a small collection of ready reference books from which a reference librarian assists patrons.

Clarkson College.--Since Clarkson is primarily an engineering college, the reference collection is somewhat slanted in the direction of science and technology. No reference desk as such is maintained and the reader is on his own in asking for staff help. The card catalog is not the unique source for holdings information. Some annuals which fit the reference definition have holdings listed on the main entry card. Many entries for serials are stamped "See Kardex" or "See Shelflist." In some instances, cards for checklist items had been removed from the Kardex and were being worked on by catalogers. A number of titles had to be checked in both the catalog and the shelflist (located in an office) or the Kardex for complete information.

Potsdam State.--At Potsdam State, the catalogers are extremely busy overcoming a large backlog of orders received and in converting to the Library of Congress classification. Consequently, the public catalogs and the shelflists, of which there are four, are somewhat difficult to use because many cards are temporarily removed. Order slips are filed for books on order. Students or faculty who need access to books not yet cataloged can request rush service. For the user persistent in his checking, and willing to ask for help from staff members, Potsdam does offer a rather extensive reference collection. Many of these problems will be alleviated when the new library is completed and occupied. For the present, the bulk of the reference collection is in a crowded general reference and reading room where a service desk is staffed at all times. Additional reference service is available on the second floor for the periodicals, instructional materials, and audio-visual materials which are housed there.

Plattsburgh State.--The card catalog at Plattsburgh is well-developed and efficient. All serials holdings are listed on main entry cards, a considerable help for the library user. At least one professional staff member is on duty at a service desk to assist readers using the catalog or reference materials. Although the reference collection is not so extensive here as at Potsdam and St. Lawrence, it is well-selected for its purposes. A few checklist items such as the London Times Literary Supplement and Facts on File are owned but are not listed in the catalog but do have Kardex entries.

Checklist Results

Appendix II to this report consists of a table which shows the holdings of the six libraries on each of the 334 checklist titles and shows 1) whether the library has the title or, in the case of sets, has substantial holdings which would be useful to advanced research; 2) whether the title is represented in the library but in scattered or fragmentary fashion, or in an older edition, but could still be considered as of some value; or 3) whether the title is either not held or holdings are so fragmentary as to have no value for research purposes.

Table 16 shows, by library, the percentage of checklist titles held by each of the six libraries in complete or substantial form, in fragmentary form, or not at all. For complete or substantial holdings, St. Lawrence and Potsdam State have the largest number of titles, 63 percent and 59 percent respectively. This confirms the impression one gains from visiting the libraries and inspecting the reference collections. Both libraries place considerable emphasis on the reference function of the library. Potsdam State, whose reference collection has been built up rapidly in the last several years, lacks the depth of the St. Lawrence collection in older and out-of-print works but is assembling a good general reference collection. The two public library systems show up less well on the checklist, but this is explained by the fact

TABLE 16

PERCENT OF SELECTED REFERENCE TITLES HELD BY SIX MAJOR NORTH COUNTRY LIBRARIES

(N = 334)

Library	Complete or Substantial Holdings	Fragmentary Holdings	Title Not Held
SLU	63%	9%	28%
CCT	42	8	50
PDS	59	11	30
PBS	45	15	40
CEF	33	4	63
NCS	31	5	64

that neither one even attempts to staff and maintain a complete general reference collection.

Among the academic libraries, Clarkson makes the poorest showing, having only 42 percent of the titles in complete or substantial form. Even though it might be considered a special case because of the strong emphasis on science and technology in the curriculum, the school also offers a fairly broad program in humanities and social studies which would justify holding a larger percentage of the non-science titles from this list than is the case. Only in the case of reference titles in the sciences does Clarkson show a higher percentage of checklist holdings than Potsdam State, and even in this category St. Lawrence is still the leader in titles held.

The chief purpose of the Checklist is not to "rate" reference collections in the various libraries but to get a general picture of the distribution of basic reference titles in the area and to discover gaps in the total holdings. Since the checklist of reference titles is made up of basic titles which should be found in any reasonably complete general reference collection that could be used for advanced reference work, it is of interest to note what titles are missing from the six libraries or are poorly represented, and also to note any undue duplication which makes the total resources of the area less useful. Reference resources, being frequently expensive and often little used, represent one of the best areas in which cooperation in acquisitions might be practiced. With this in mind, we can look on the various titles and categories used in this checklist as indicative of the present reference resources in the North Country and of the missing resources.

Among the 14 titles in the first category, "Encyclopedias and Supplementary Works," the observation can be made that major foreign encyclopedias are not well represented. Foreign titles are also poorly represented in the second category, "Biographical Dictionaries and Indexes," although the Dictionary of National Biography and the Dictionary of American Biography are held in complete form in the four academic libraries. Categories three and four, "Dictionaries" and "Maps and Atlases," are too limited to discriminate among collections, except to show the limited holdings of Clarkson in these areas.

The 18 items in category five, "Indexes to Magazines, Newspapers, and Books," show some important gaps in holdings, especially when one goes beyond the H. W. Wilson Co. indexes and considers British and Canadian indexes to periodicals. The British Technology Index is held only at Clarkson and the British Humanities Index is available in two of the six libraries. While the older Subject Index to Periodicals is available at St. Lawrence in a nearly complete run (only three volumes are missing) it is not found elsewhere. The complete Canadian Periodical Index is held at St. Lawrence and a partial file is at Potsdam. In category six, "Lists of Magazines and Newspapers," St. Lawrence has by far the best collection while the two public library systems hold virtually none of the titles.

Category seven, "Bibliographies," with 33 items, further illustrates the overall weakness of reference holdings in the area. While St. Lawrence and Potsdam both have over half of the titles from the list, many useful sets, including several of the essential national bibliographies from Great Britain and France, are missing from the area.

In "Philosophy, Psychology, and Religion," St. Lawrence holds 14 of 19 items, due partly, no doubt, to books from the Theological School Library which are still part of the St. Lawrence collection. The items missing in the area are mostly in the field of psychology rather than philosophy or religion. Potsdam shows the best holdings in category nine, "Art and Architecture," including important foreign reference books such as the Allgemeines Lexicon der Bildenden Kunstler. In this category, as in the next, "Literature and Theater," both public library systems hold a fair number of titles, although in both cases, the titles held turn out to be the general and more popular ones, such as indexes to reproductions of paintings, rather than the more substantial titles.

In category nine, "Literature and Theater," Plattsburgh joins St. Lawrence and Potsdam in having substantial holdings. This category, like the previous one, is especially weak at Clarkson. Essential bibliographies such as The Year's Work in English Studies and The Year's Work in Modern Language Studies are not represented adequately in the area. For titles in category eleven, "Music and the Dance," one finds the best representation at Potsdam, where the few missing items from the list of 20 are chiefly in the dance area. Other libraries tend to hold only the most general works such as Grove's Dictionary of Music and Musicians and Thompson's International Cyclopedia of Music and Musicians.

Of the six libraries St. Lawrence has the best representation in category twelve "General and Biological Sciences"; they have substantial holdings in 13 of the 19 titles. The general sets, such as the McGraw-Hill Encyclopedia of Science and Technology and Van Nostrand's Scientific Encyclopedia, are widely held, as are such tools as the Harvard List of Books in Psychology, the Space Encyclopedia, and Gray's Encyclopedia of the Biological Sciences. The Agricultural Index is found in substantial form in two of the six libraries, and the Technical Book Review Index, in three of the six libraries.

Both St. Lawrence and Clarkson hold over half of the 39 items in category 13, "Physical Science." The two state colleges show up much less well, while the two public library systems have poor holdings indeed. This is the one area in which the Clarkson collection is strong enough to show considerable duplication of titles already at St. Lawrence. In this category, as in most of the others, there are several important items held by only one of the six libraries, items which might possibly not need to be duplicated if their availability to other users were assured. This is especially true of the three libraries in the Canton-Potsdam area. Unique titles in the physical sciences, for instance, are Bolton's Select Bibliography of Chemistry, 1492-1892, at St. Lawrence and the Engineering Index at Clarkson.

Potsdam makes the best showing in category 14, "Social Sciences," holding 16 of the 19 titles. St. Lawrence also does well, having, among other titles, the area's only London Bibliography of the Social Sciences and the most complete set of PAIS Bulletin. In "Political Science," category 15, both schools do somewhat less well, with St. Lawrence holding 16 and Potsdam 15 of 26 items. In category 16, "Business and Economics," none of the six libraries has a good representation of the 24 titles. Since business management is a major field at Clarkson, one would expect fairly strong holdings, but this is not the case. Equally surprising is the relatively poor showing in the final category, "Education," where only Potsdam has a substantial proportion of the 14 titles.

Improving North Country Reference Resources

Some of the reference books not held or sparsely represented have been indicated in the discussion above; the complete listing in the Appendix shows many others. The North Country area appears to be weak in such reference resources as national bibliographies other than American; indexes to periodicals other than the common H. W. Wilson Company indexes; basic older reference tools which have not been reprinted or published in new editions; catalogs of other libraries and collections; biographical sets and encyclopedias in languages other than English; subject bibliographies and indexes essential to advanced reference work in many fields, such as English and American literature, psychology, and geology; current business services; current materials in foreign affairs; and reference tools in newer fields of area studies.

Any efforts made by North Country libraries toward coordinating acquisitions will need to consider these gaps in reference collections along with a buildup of book and periodical materials by subject areas. In many cases, partial holdings of various reference sets and periodical files might well be consolidated so that essential titles are represented in fairly complete form in at least one library.

Efforts at filling in missing reference titles will be of little value unless, at the same time, arrangements are made so that potential users can become aware of resources at other area libraries. An extension and refinement of the main entry card exchange system would be one solution. Perhaps even more useful would be a union catalog of reference books, serials, periodicals, and documents, published perhaps in book form and constantly updated, and issued with the understanding that all these specialized holdings are held in common by area schools and are available to all authorized users. The existing open door policy on library use at libraries in the Canton-Potsdam-Ogdensburg area could receive more formal recognition as an authorized cooperative endeavor by area colleges.

Concurrently, a more active program of reference service, involving use of teletype and telephone among all libraries, would make it possible to get much more use out of the resources now available or to be added. Even such a simple and inexpensive solution as telephone tie-lines among all libraries would help to encourage active reference service, as would better and more convenient facilities for mailing. As long as calling another library, copying several pages from a reference book, or mailing a small packet of materials requires extraordinary effort, these devices will be little used in support of reference service. One need not dwell on the handicaps placed on effective reference work by unstaffed reference desks, inaccessible copying machines, the unavailability of wrapping and mailing facilities, and the delays and expense of long distance telephone calls. Unless the activities involved in cooperation are simple, the spirit of cooperation suffers.

References

[1] Mary Neill Barton, Reference Books: A Brief Guide for Students and Other Users of the Library, 5th edition. (Baltimore: Enoch Pratt Free Library, 1962).

[2] *Ibid.*, p. 3.

CHAPTER V

RESOURCES: PERIODICALS

To date no regional union list of any kind is available which would make it possible to determine accurately the exact status of the holdings of periodicals and serials in the North Country area. Because of the lack of a uniform definition in the various libraries of what constitutes a periodical and a serial, plus the quite varied methods of handling and recording these materials, the holdings lists which several of the libraries have compiled for the use of their own patrons are not strictly comparable. These lists vary considerably in detail, scope, and completeness, especially in regard to the inclusion of monographic serials, continuations, government documents of a serial nature, newspapers, and other special categories. Despite these limitations, it is possible to derive some general information about the periodical and serial holdings of the major North Country libraries by studying these lists.

North Country Serial Holdings Lists

The basic list available at Plattsburgh State College is dated December, 1965, and is headed "Periodical Holdings." It includes information on current subscriptions and back issues of periodicals and serials (including most microfilm and microcard editions) and contains 1,058 titles. This list is supplemented by typed lists dated January, 1966, the first showing 89 additional serials to be added to the basic list, the second showing 43 U.S. government serials to be added. The impetus for these lists was the State University of New York's union catalog project which is to include holdings for all State University of New York units, based on lists provided by each library, consolidated, rechecked, and printed.

Potsdam State College Library issued in July, 1966, an interim revised list of periodicals and serials typed from the print-out done for the State University of New York Union List of Periodicals. The 1,295 titles on the list include titles currently received, periodicals on order, microfilm holdings, and closed runs. Many of the titles included in the list are not in periodical format; for example 33 abstracting and indexing services and 21 newspapers are included. A compilation of 37 new titles ordered since the list was published supplements the main list.

Some idea of the relative newness of the periodical collection at Potsdam is gained by noting the fact that 176 of the titles in an earlier April, 1965, list are for subscriptions added in 1964-65, while well over 100 have been added during 1965-66. Much of the periodical collection is definitely characterized by newness, with a large number of the titles held in only one or two volumes.

The Owen D. Young Library at St. Lawrence University was in the process of compiling a list of serial holdings while this survey was in progress, and a copy of the draft of February, 1966, was available. The list contains brief title holdings and campus location for 1,318 titles, including 43 newspapers. Unlike the lists from the two state colleges, the St. Lawrence list generally excludes such things as abstracts, indexes, and continuations, thus making comparison of total holdings difficult. For instance, while Plattsburgh and

Potsdam both include Reader's Guide, Dissertation Abstracts, and Facts on File in their lists, these are not on the St. Lawrence list although they are in the library. Despite such discrepancies, it is evident that the holdings of serials and periodicals at St. Lawrence are more extensive both in number and in length of files than at either of the state colleges. One special group of 109 theological periodicals is now housed in the library, but the future disposition of the collection is uncertain since the St. Lawrence Theological School which owned them has been discontinued.

No complete list of serial and periodical holdings is available for Clarkson College although one is planned. However, there is available a partial list of periodical subscriptions showing 475 titles currently received and a supplementary list of gift, depository, and direct subscriptions, which adds another 52 titles. Here again, the inclusion or exclusion of certain types of materials makes comparison difficult. The H. W. Wilson Company indexes are not included on either list, although several are received; Dissertation Abstracts appears on both lists; some U.S. documents of a serial nature are included, others are omitted.

Periodical lists of varying degrees of completeness are also available for several other libraries in the North Country. The Wadhams Hall library issues a list of 183 periodicals currently received, mostly in the social sciences and humanities with strong emphasis on religion, especially Catholicism. The Jefferson Community College Library has a checklist of 223 titles received but as yet has no list showing extent of holdings. However, since the library has been in existence only three years, few of the periodicals are owned in files longer than that. The Agricultural and Technical College at Canton issues a list of 330 titles received showing particular strengths in agriculture, business, economics, and applied science.

The Clinton-Essex-Franklin Library System has issued a list of periodicals available at the Plattsburgh Public Library which shows 214 titles, with about half of these on microfilm. The System has made an effort to build up a good collection of files of indexed periodicals, and the library already shows fairly strong holdings in some of the general and popular magazines that are not held in extensive files elsewhere in the area. No listing was available of periodicals held by the two central libraries of the North Country Library System--Watertown and Ogdensburg--but their combined holdings do not now equal those of the Clinton-Essex-Franklin System.

Periodical Checklists

In an effort to make possible some direct comparisons of the periodical holdings at the four major academic libraries, three checklists of indexed periodicals were prepared and checked against the available published lists of library holdings described above. Since the Clarkson list was incomplete, the Kardex record in the Clarkson Library was checked by a member of the Survey staff. Some verification of holdings was also done at the other libraries by use of check-in records or shelflist records to supplement published lists. Appendix III contains tables showing the results of these three checklists.

Checklist I consisted of 50 titles chosen from the Reader's Guide to Periodical Literature with emphasis on the titles that would be of continuing reference value in an academic library, omitting such general popular periodicals as Time, Saturday Evening Post, Better Homes and Gardens, etc. Checklist II consisted of 208 titles from the Social Sciences and Humanities Index. Checklist III consisted of 192 titles from the Applied Science and Technology Index. No general American library can expect to render adequate service without substantial coverage of titles from these standard periodical indexes.

Table 17 shows the percentage of titles from each checklist held at the four North Country academic libraries.

TABLE 17

PERCENT OF CHECKLIST TITLES FROM THREE WILSON INDEXES HELD BY FOUR ACADEMIC LIBRARIES

Index	SLU	CCT	PDS	PBS
Reader's Guide to Periodical Literature (50 titles)	86%	88%	80%	100%
Social Sciences and Humanities Index (208 titles)	71	37	70	64
Applied Science and Technology Index (192 titles)	14	84	10	15

The locally prepared lists of periodical and serial holdings (supplemented by the Kardex records at Clarkson) are the source of data for Table 18, which attempts to show somewhat more clearly what was noted earlier as one of the characteristics of periodical holdings at some of the academic libraries--the relative recency of many subscriptions and the short backfiles. This table

TABLE 18

MEAN LENGTH OF FILES OF CHECKLIST TITLES FROM THREE WILSON INDEXES HELD BY FOUR ACADEMIC LIBRARIES

Indexes	SLU	CCT	PDS	PBS
Reader's Guide to Periodical Literature (of 50 titles)	42.0 years (43 titles)	31.2 years (44 titles)	26.4 years (40 titles)	25.4 years (50 titles)
Social Sciences and Humanities Index (of 208 titles)	26.7 years (148 titles)	10.8 years (76 titles)	9.6 years (146 titles)	13.7 years (134 titles)
Applied Science and Technology Index (of 192 titles)	37.2 years (26 titles)	21.9 years (162 titles)	10.2 years (20 titles)	12.4 years (29 titles)

shows the average length of files, in years, for those titles from the three periodical checklists owned by St. Lawrence, Potsdam State, Plattsburgh State, and Clarkson. The table shows, for instance, that the average length of files for St. Lawrence's 148 titles from the Social Science and Humanities Index is 26.7 years while the equivalent figure for Plattsburgh's 134 titles is 13.7 years. Table 19 attempts to show something about the extent of duplication of checklist titles at the four academic libraries. These tables are discussed in the section which follows.

TABLE 19

DUPLICATION OF CHECKLIST TITLES FROM THREE WILSON INDEXES
HELD BY FOUR ACADEMIC LIBRARIES

	Number of Libraries Receiving Title				
Index	None	One	Two	Three	Four
Reader's Guide to Periodical Literature (50 titles)	0	2	5	8	35
Social Sciences and Humanities Index (208 titles)	18	34	46	62	48
Applied Science and Technology Index (192 titles)	25	131	17	4	15

Table reads: Of 50 titles from the Reader's Guide checklist, 2 are held by only one library, 5 are held by 2 libraries, 8 are held by 3 libraries, etc.

Checklist Results

Holdings from Checklist I are quite extensive. Plattsburgh State holds all of the 50 Reader's Guide titles chosen for the checklist and each of the other three schools holds 80 percent of the titles or better. Some omissions in the holdings are the Congressional Digest and the Harvard Business Review which are not at Potsdam State and held only since 1961 at Plattsburgh State. Potsdam State holds the Monthly Labor Review only since 1963 and Science News Letter since 1965. Of the 50 titles from the Reader's Guide none are missing from all four libraries. Two titles are held at only one library--American Forest and Negro History Bulletin. Eight titles are at three of the four libraries, five are at two of the four libraries, and 35, or over two-thirds, are held by all four libraries.

Even [illegible] this checklist of common general periodicals, the superiority of the St. Lawrence collection is evident in the length and completeness of the files held. Thus while Plattsburgh State subscribes to more of the titles on Checklist I, its holdings are generally less useful for reference and research needs than the more complete files at St. Lawrence. Plattsburgh State holds, for example, 37 years of Scientific American compared to 119 years at St. Lawrence, 33 years of the Annals of the American Academy of Political and Social Science instead of 75.

Of the 50 titles on Checklist I, the mean number of years per file for the 43 titles held at St. Lawrence is 42.0; at Clarkson the mean is 31.2 years for the 44 titles held; at Plattsburgh State the mean is 25.4 years for the 50 titles held; at Potsdam the mean is 26.4 years for the 40 titles held. It is obvious that the two state colleges have been providing good coverage of periodicals indexed in the Reader's Guide for quite a few years. Their coverage is in some cases perhaps too good, in that long files of some of these general periodicals have been acquired and maintained while more scholarly journals have been missed. This is substantiated by Checklist II.

On Checklist II, representing 208 titles in the social sciences and humanities, the percentage of titles held ranges from 37 percent at Clarkson to 71 percent at St. Lawrence. When one moves from the general Reader's Guide type of journal to this more scholarly level, the superior holdings of St. Lawrence are at once evident. Although the two state colleges have added a great number of learned journals in these fields during the last ten years, and especially during the last two years, it will be another decade before many of these files are of more than limited use for research purposes. Among titles held at St. Lawrence in considerable files and missing or represented by limited files at the other schools, are such journals as International Labour Review, American Journal of Economics and Sociology, American Speech, English Historical Review, Public Administration Review, Social Research, and PMLA.

Of the 208 titles on the list, the mean number of years per file for the 142 titles held at St. Lawrence is 26.7. Clarkson holds 76 titles and the mean number of years per file is 10.8. For Potsdam State, the mean number of years per file for the 146 titles held is 9.6; at Plattsburgh State, the mean for the 134 titles is 13.7.

There is obviously room for serious efforts at coordinating future subscriptions so that coverage of the Social Sciences and Humanities Index is more complete for the area through subscriptions begun or continued at one or another of the four schools. Of the 208 social science and humanities titles, 17 are not held in any of the four libraries. Included are a number of important regional and area studies journals, several British journals, and journals in such fields as sociology, theater, and classical studies. All four schools hold 49 of the titles, including Virginia Quarterly Review, Journal of Modern History, American Economic Review, Sewanee Review, and American Literature. For 44 of the titles there are files at two of the four libraries, for 62 journals, files at three libraries, and for 36 journals, files at one library.

Checklist III, 192 titles from the Applied Science and Technology Index, reveals the very low percentage of coverage of these fields at all schools, except Clarkson, which receives 84 percent of the titles. However, while the percentages of holdings are low at St. Lawrence (14 percent), Potsdam (10 percent), and Plattsburgh (15 percent), the titles held are generally of a substantial nature with long range value to an academic library. Once again, the maturity of the St. Lawrence collection is evident even though the coverage is limited. The mean number of years per file for its 26 titles is 37.2 while at Potsdam State the 20 titles held have an average file length of 10.2 and the 29 titles at Plattsburgh have an average file length of 12.4. The 162 titles held by Clarkson have an average file length of 21.9, but in many cases the holdings are very fragmentary, a fact substantiated by the many comments regarding the fragmentary holdings and missing volumes made by faculty members on the questionnaires (see Chapter III).

The 192 titles from the Applied Science and Technology Index list include a great many which are obviously not directly related to the teaching interests of St. Lawrence or the two state colleges, but are more closely tied to the program at Clarkson. This is evidenced by the fact that Clarkson holds the largest percentage of titles from the list (84 percent). Of the 192 titles, 131 are held at only one school, which is usually Clarkson, although Plattsburgh has several food and nutrition journals not held elsewhere. Twenty-five of the titles are not held by any of the four schools. Only 15 titles are held by all four libraries and four titles are held by three libraries--a remarkable lack of overlap.

Implications

This cursory look at the periodical and serial resources of the North Country perhaps does not do justice to the area as a whole since it concentrates on the four academic libraries and relies to a large extent on published lists as a source of information. However, the descriptions given should provide evidence to support the statement that, even taken as a whole, the area does not yet have sufficient breadth of coverage in periodical literature to satisfy reference and research demands. Even if all area holdings were freely and conveniently available for interlibrary loan and for on-premises use by any qualified user, the combined resources would still not approach those of a general research library sufficiently rich in resources to take care of most of the needs of scholars and researchers. Even with a good regional system of interlibrary loan and photocopy facilities, and with the best spirit of cooperation, the North Country libraries would still have to depend on access to library collections outside the area in order to fill many of the routine needs of researchers.

This fact is evident if one examines some of the interlibrary loan requests which have been made by North Country libraries within the last year. A list of 155 titles from which copies of journal articles were obtained by Clarkson for faculty requests in recent months from sources other than the New York State Library illustrates the seriousness of the problem of achieving regional self sufficiency as far as periodicals are concerned. Of the 155 journals over half are foreign in origin, ranging all the way from Acta Physica Polonica to Zeitschrift für Physiologische Chemie. None were available in other North Country libraries. All were initially requested from the New York State Library but were either not owned, missing, or in use when needed. Obviously, then, for access to resources of this nature, even a reference and research network which put the North Country in closer touch with Albany would be insufficient. Of the items on this particular list, 117 were eventually obtained from other libraries in the state, especially Cornell, New York Public Library, Rochester, and Syracuse, in the order named. The other 38 came from various libraries around the country.

The problem of adequate access to journal literature cannot be solved on an area basis, especially in an area such as the North Country, but there are a number of useful intermediate steps that these libraries of the area can take to maximize the effectiveness of present resources and to add wisely to them. There is at present no formal agreement for subject specialization in acquiring and maintaining files of periodicals in the North Country. A fair estimate at present would be that Plattsburgh State College plus the Clinton-Essex-Franklin Library System offers the best current source for general periodicals of the more popular Reader's Guide type. St. Lawrence currently has the best collections in social sciences, humanities, basic sciences, theology, and philosophy. Potsdam is building up good periodical holdings in social sciences and humanities. Clarkson offers the best coverage in applied science. The Agricultural and Technical College at Canton provides the best periodical resources in agriculture and perhaps in general business.

It would be a relatively simple and inexpensive matter to work out cooperative agreements among the major libraries so that at least one library in the area has a subscription to each journal indexed in the major periodical indexes and so that all periodical resources are made freely available within the region. Thus, a much larger proportion of periodical requests could be satisfied within the area, and users would have the added benefit of direct access to files at neighboring libraries. Some such regional effort would seem to have advantages even if a much-improved method of getting loans or photocopies directly from the state were achieved. The creation of a regional

union list of serials would be a natural development of this cooperative scheme and would not be expensive to create and to update, providing the costs were shared by all libraries. A relatively modest grant of demonstration funds to undertake such a program of added subscriptions, assigned subject specialties, increased interlibrary loans within the region, and quick photocopy service might serve as a model project for the state in maximizing limited regional resources.

2

CHAPTER VI

ASPECTS OF AREA LIBRARY RESOURCES

As one further means of evaluating North Country library resources, it is useful to analyze in some detail the subject distribution of the existing book collections in the four major academic libraries since these libraries contain the bulk of what might be considered reference and research resources. As previous chapters have indicated, no regional plan for improved reference and research resources, whether under the 3-R legislation or other programs, can hope to succeed without full utilization of all these collections.

Subject Distribution of Library Resources

A record of number of volumes held by subject breakdown is available only for Potsdam State College; in the other three academic libraries no such record has been kept and there are no statistics which would yield the information directly. Some limited information is available, however, from the academic library questionnaire for 1965 distributed by the U.S. Office of Education. This questionnaire asked for estimates of the percentages of library holdings in five major subject fields. Table 20 shows the answers submitted by the four major academic libraries in the North Country area, and also by the Agricultural and Technical College at Canton.

TABLE 20

ESTIMATED PERCENTAGE DISTRIBUTION OF HOLDINGS AT FIVE NORTH COUNTRY ACADEMIC LIBRARIES BY MAJOR SUBJECT FIELDS

Subject Field	SLU	CCT	PDS	PBS	ATC
Humanities 000, 100, 200 400, 700, 800	45.0%	24.2%	48.0%	37.0%	28.0%
Social Science 300, 900	40.0	25.5	40.5	46.0	24.0
Physical Science 500-559	8.0	20.0	5.5	6.0	6.5
Biomedical Science 560-599, 610-619	4.0	1.9	4.0	7.0	7.0
Technology 600-609, 620-699	2.0	28.4	2.0	4.0	34.5

SOURCES: Annual reports submitted to USOE, February, 1966.

Since the subject categories used by the Office of Education are rather broad, some means of measuring in greater detail the subject distribution of these libraries was needed. Counting the actual volumes on the shelf and in circulation was obviously impractical. In lieu of actual counting, an existing record that could be analyzed to get the needed comparative data was sought. The shelf list records in the four libraries provide such a source of information since each shelf list shows the complete holdings of its library. When the measurements were made, the Dewey Decimal classification was used by all four libraries. The libraries which are affiliated with the State University of New York have now begun to convert to the Library of Congress classification.

A procedure for using a shelf list to make an estimate of the subject distribution of books in a library was developed by W. V. Jackson in a study of the University of Illinois Library.[1] This method, as modified to suit the needs of this survey of North Country library resources, is outlined in the following paragraphs.

Each tray of shelf list cards was first measured in order to get the total number of centimeters of cards in the shelf list. A sample of one centimeter was then taken from each tray, and the sample cards were counted; the total number of cards was divided by the number of trays sampled to determine the estimated average number of cards per centimeter. To find the average number of volumes represented on each shelf list card, another sample of 25 cards was taken from each tray and the volumes recorded on each card were counted. The number of volumes from the sampled cards was totaled, and this total was divided by 25 times the number of shelf list trays to obtain a figure representing the average number of volumes listed on each card.

For each of the four shelf lists, the one hundred divisions of the second summary of the Dewey Decimal classification were then measured, and these measurements were multiplied by the average number of volumes per card to get the estimated number of volumes in each division. The divisions were regrouped into the ten major Dewey classes, and the percentage distribution of the broad categories was calculated.

The limitations of any shelf list measurement method are apparent. An estimate, not an exact number of volumes, is determined for the subject divisions. Some variations in subject classification undoubtedly occur among catalogers who are classifying collections that serve diverse needs in different institutions. Varying weights of card stock and temporary paper slips may make a slight difference in the measurements, but these variations can be considered in the estimates.

Several cross checks for accuracy were employed. The estimates of subject holdings submitted by the libraries to the U.S. Office of Education were derived from a similar shelf list measurement procedure, and the results were compared. In some of the small classes, the actual physical volumes represented on the shelf list cards were counted and these figures were compared with those obtained from the measurements. A final check was made by comparing the total recorded holdings of the libraries with the total holdings estimated from the shelf list measurements. The estimates derived from the shelf list measurements were comparable to the figures in the cross checks.

General characteristics.--The characteristics of the subject distribution of the total library resources of the four major North Country academic libraries, as determined by shelf list measurements is discussed below. An analysis of the holdings of each of the libraries follows the general description. The remarks are necessarily quantitative because no evaluation of the quality was made when the shelf list measurements were compiled.

The estimated total holdings of books in the four academic libraries were 342,653 volumes in February, 1966. Table 21 shows the estimated total holdings by the ten major Dewey classes. Social sciences (300) and literature (800) had the greatest holdings with 79,657 and 66,798 volumes respectively; they

TABLE 21

ESTIMATED TOTAL HOLDINGS IN FOUR MAJOR NORTH COUNTRY ACADEMIC LIBRARIES BY MAJOR DEWEY CLASS

Class	Estimated Total Number of Volumes	Estimated Percentage of Total Holdings
300 Social Sciences	79,657	23.2%
800 Literature	66,798	19.5
900 History, Geography, & Biography	55,573	16.2
700 Arts, Recreation, & Customs	36,882	10.8
500 Pure Science	34,472	10.1
600 Applied Science	24,324	7.1
200 Religion	16,974	5.0
100 Philosophy	14,852	4.3
000 General Works	8,540	2.5
400 Linguistics	4,581	1.3
	342,653	100.0%

SOURCE: Shelflist measurements.

comprised 23.2 percent and 19.5 percent, or a combined 42.7 percent of the total holdings. The next largest group was history, geography, and biography (900) with 55,573 volumes or 16.2 percent of the total resources. The fourth largest category was arts, recreation, and customs (700) and with 36,882 volumes it constituted 10.8 percent of the total.

There were 34,472 volumes in pure science (500), constituting 10.1 percent of the total holdings, and 24,324 volumes in applied science (600) making 7.1 percent of the total. The sciences together represented only 17.2 percent of the total resources.

Holdings in the next two classes--religion (200) and philosophy (100)--fell within a fairly close range, 16,974 volumes and 14,582 volumes respectively. The two categories represented 5.0 percent and 4.3 percent of the total resources. The last two subject areas, which contained the least number of volumes, were general works (000) and linguistics (400). Books classed in general works numbered 8,540 volumes, and in linguistics 4,581 volumes constituting 2.5 percent and 1.3 percent respectively of the total resources.

Although there are no established norms against which this distribution by major subject class can be judged, it seems evident that there is an imbalance here which reflects some weaknesses in the total library holdings of the North Country area. More than two-thirds of the total holdings fall in the area of social sciences, literature, history, and the arts (300, 800, 900, and 700). The pure and applied sciences make up only 17.2 percent of the total, despite the fact that one of the four schools, Clarkson College, is specialized in science and technology.

In the sections that follow, the holdings at the four libraries are considered separately according to the major Dewey classes. Table 22 shows the estimated holdings by volumes, Table 23 by percentages.

TABLE 22

ESTIMATED HOLDINGS AT FOUR NORTH COUNTRY ACADEMIC LIBRARIES BY MAJOR DEWEY CLASS

Class	SLU	CCT	PDS	PBS	Total
000 General Works	3,886	1,220	1,838	1,596	8,540
100 Philosophy, Logic & Psychology	6,690	1,238	3,415	3,509	14,852
200 Religion	13,697	682	1,126	1,469	16,974
300 Social Science	32,940	8,495	24,595	13,627	79,657
400 Linguistics	1,339	1,024	1,540	678	4,581
500 Pure Science	15,375	8,045	4,585	6,467	34,472
600 Applied Science	6,365	10,350	1,839	5,770	24,324
700 Arts, Recreation & Customs	7,206	1,399	22,177	6,100	36,882
800 Literature	32,960	7,767	14,100	11,971	66,798
900 History, Geography & Biography	24,153	5,492	11,830	14,098	55,573
	144,611	45,712	87,045	65,285	342,653

SOURCE: Shelflist measurements.

St. Lawrence University.--The St. Lawrence University Library reflects the emphasis the school places on the liberal arts; literature and social sciences are the two subject areas with the greatest strengths. Each class has nearly 33,000 volumes, and combined they make 45.6 percent of the total collection. History, the next largest class, has 24,100 volumes, or 16.7 percent of the total collection. Although science is not one of the specialties of St. Lawrence University, the books classified in pure science (15,375 volumes, or 10.6 percent of the total) make up a significant part of the collection, a larger number of volumes than at Clarkson College. Religion is a relatively large class (13,697 volumes, 9.5 percent of the total) since the theological school collection is still held by the library although the school itself has closed. The fine arts, philosophy, and applied science have about the same number of volumes--7,206, 6,690, and 6,365 volumes respectively. General works (3,886 volumes) and linguistics (1,339 volumes) are least well represented.

Clarkson College of Technology.- As a result of Clarkson College of Technology's specialization in science and technology, the applied science category has the greatest number of volumes (10,350 volumes, 22.6 percent of collection), but even so, it makes up less than one quarter of the collection. Social sciences (8,495 volumes, 18.6 percent of total holdings) are second largest in size, and pure science ranks third with 3,045 volumes (17.6 percent of total). Literature (7,767 volumes, 17.0 percent) and history (5,492 volumes, 12.0 percent) are perhaps represented adequately in view of the school's concentration in courses in science. Other humanities classes--philosophy, general

TABLE 23

ESTIMATED PERCENTAGE DISTRIBUTION OF HOLDINGS AT FOUR NORTH COUNTRY ACADEMIC LIBRARIES BY MAJOR DEWEY CLASS

Class	SLU	CCT	PDS	PBS
000 General Works	2.7%	2.7%	2.1%	2.4%
100 Philosophy, Logic & Psychology	4.6	2.7	3.9	5.4
200 Religion	9.5	1.5	1.3	2.2
300 Social Science	22.8	18.6	28.3	20.9
400 Linguistics	.9	2.2	1.7	1.0
500 Pure Science	10.6	17.6	5.3	9.9
600 Applied Science	4.4	22.6	2.1	8.9
700 Arts, Recreation & Customs	5.0	3.1	25.5	9.3
800 Literature	22.8	17.0	16.2	18.3
900 History, Geography & Biography	16.7	12.0	13.6	21.7

SOURCE: Shelflist measurements.

works, linguistics, and religion--are represented by an estimated 1,238, 1,220, 1,024, and 682 volumes respectively, a total percentage of 9.3

Potsdam State College.--In the Potsdam State College Library there is not one official shelf list where all the library's holdings are entered, but three separate shelf lists.[2] Two shelf lists are in the main library; one contains entries for books in the library's general collection, the other is made up of entries for cataloged pamphlets, which are primarily in the field of education. A third shelf list is maintained by the Crane Music Library, and it has books, cataloged pamphlets, scores, and records classified according to a special scheme. Only the shelf list containing the library's general collection was measured. To describe the subject distribution of the Potsdam State College Library accurately it is necessary to correct the figures for the social sciences and arts, recreation and customs classes where measurements are incomplete (see Table 22). Since the estimates of subject holdings derived from the shelf list measurements are very near the statistics kept by the library, the estimate has been corrected by adding the library's statistics for cataloged pamphlets (14,060 volumes) to the 300 class and the Crane Music Library holdings (16,959 volumes) to the 700 class.

The library at Potsdam State College is strongest in social sciences, and with 24,595 volumes this subject area makes up slightly more than one-quarter of the total collection (28.3 percent). Education is the strongest single subject within the social sciences, a result of the school's having been a teacher's college. Arts, recreation, and customs is the second largest category; its 22,177 volumes, of which 16,959 are in the Crane Music Library, constitute one-quarter (25.5 percent) of the total collection. Literature is the third largest class with 14,100 volumes (16.2 percent of the total) and history ranks fourth with 11,830 volumes (13.6 percent of the total).

The Potsdam collection has an estimated 4,585 volumes classed as pure science (5.3 percent of the total) and 3,415 volumes (3.9 percent of the total) in philosophy. Applied science (1,839 volumes), general works (1,838 volumes), linguistics (1,540 volumes) and religion (1,126 volumes) are the categories with the smallest number of books.

Plattsburgh State College.- The three largest subject categories at Plattsburgh State College are within the same range in size. The library is strongest in history; the 14,098 volumes in this category represent more than one-fifth (21.7 percent) of the total holdings. The social sciences are well represented with 13,627 volumes, 20.9 percent of the collection. Literature has 11,971 volumes, ranks third in size, and has 18.3 percent of the total holdings. The holdings in pure and applied science (12,237 volumes or 18.8 percent) are considerably ahead of the same categories at Potsdam State College and reflect the strong programs at Plattsburgh in nursing education and home economics.

The fine arts category at Plattsburgh consists of 6,100 volumes or 9.3 percent of the collection. Philosophy (3,509 volumes), general works (1,596 volumes), religion (1,469 volumes), and linguistics (678 volumes) are the categories with the least number of volumes; combined they form 11.0 percent of the collection.

Area Strengths and Weaknesses

Total available library resources in the North Country presently number more than 1.4 million volumes, excluding books in small special libraries and other collections not easily available for public use. Table 24 shows the breakdown as recorded in recent official statistics or later estimates. A large number of books alone, however, does not make up a research library, not even if the various collections are tied together by the finest of organizational structure and communication devices.

The books in the public library collections in the two library systems contribute over 900,000 volumes to the total area resources of 1.4 million books. The number of volumes is impressive, but the public library resources actually have little to offer in materials at the research level. Of the 622,587 volumes in the North Country System, for instance, one-quarter are children's books, and of the remaining three-quarters, half are fiction. The same percentages hold for the Clinton-Essex-Franklin Library System. Any honest appraisal would have to admit that these public library resources, dispersed in small collections over a vast area, and having their primary emphases on popular reading material for children and adults plus supplementary reading for students, do not constitute much of a research resource. Even the book pool collections at the System headquarters are of little use for research since they consist largely of multiple copies of popular reading materials. Furthermore, despite great recent improvements under the central book aid program, the central library collections at Watertown, Ogdensburg, and Plattsburgh are not ready, either in resources or in staff, to provide advanced reference and research library service of the caliber projected under the 3-R Plan.

Books in academic library collections total nearly 500,000 volumes. Of greatest significance in terms of their potential for supporting advanced reference and research services are the libraries in the four four-year colleges, and especially those where graduate programs are being developed. It is only in these libraries that efforts have been made, and are increasingly being made, to acquire and retain the kind of library materials necessary for research.

As previous chapters have shown, none of the four libraries, standing alone, now provides a research collection in the real sense of the term. The

TABLE 24

TOTAL ESTIMATED AREA HOLDINGS IN PUBLIC AND ACADEMIC LIBRARIES

Library	Estimated Volumes
North Country Library System	622,587
Clinton-Essex-Franklin Library System	307,870
St. Lawrence University	175,000
Clarkson College of Technology	60,000
SUNY College at Potsdam	88,000
SUNY College at Plattsburgh	105,327
SUNY Agricultural and Technical College at Canton	14,000
Mater Dei College	20,000
Wadhams Hall	18,946
Jefferson Community College	8,452
Paul Smith's College	11,154
	1,419,982

SOURCE: For public library systems, Public and Association Libraries Statistics, 1964, Albany, 1965. For academic libraries, 1966 estimates supplied by the librarians.

book collections are simply not large enough to produce, from available materials, a reasonable proportion of titles that a large research collection should have. Their selective collections are built to fit distinct curricular requirements and they are far too limited, as yet, in reference books, periodicals, newspapers, documents, and other special categories to qualify as general research libraries. However, if these four libraries are considered together, one can see, in this dispersed collection of nearly 500,000 volumes, the possibilities of developing a workable general research library in the North Country. With careful planning and astute management of available book funds over the next decade, coupled with well-defined cooperative arrangements for acquisition and use, it is quite likely that there could be assembled a collection of materials, separately housed but jointly used, that could be considered of research stature. Such a collection would not make the area self-sufficient in research materials, but it would improve the quality and quantity of materials available to the region to such an extent that a considerable proportion of requests could be met regionally.

Resources in Contiguous Areas

Since there is no library in the North Country large enough to qualify as a research collection, it might be expected that students and researchers needing access to such materials would benefit by arrangements to use library collections in neighboring areas, and that such use might substitute for an actual research library located in the North Country. The chapter on faculty use of libraries has shown that, for this one group at least, there is already some reliance on visits to libraries in other cities. These visits are not frequent nor easily accomplished since there is no major research library within reasonable driving distance of most North Country residents. Those visits which are made are usually incidental to travel for other reasons such as business, vacation, or attendance at meetings and conferences.

Suggestions made in previous studies for the New York State Library have recommended Syracuse or Albany as the cities to which the North Country area, or portions of the area, might be attached if regional reference and research systems were established in New York State. The faculty questionnaires have shown that there is indeed some small but measurable use by North Country residents of libraries in these two cities, especially of the New York State Library in Albany. Some use is also indicated of libraries in Montreal and Ottawa. These four cities, along with a possible fifth city--Kingston, Ontario--are the major library centers close enough to the North Country to warrant consideration of their possible role in solving the library needs of North Country area residents.

Ottawa.--A great variety of libraries are available in Ottawa and the city is relatively close to at least part of the North Country, closer in fact to the Canton-Potsdam area (85 miles) than is either Syracuse or Albany. Libraries in fifteen or more major government departments in Ottawa offer extensive specialized collections in such fields as law, agriculture, forestry, mining, fisheries, natural resources, labor, education, and finance. Other specialized collections exist for statistics, archives, and patents. In addition to departmental libraries, most of which are open at least for limited use by visiting scholars, there are larger and more general research collections available in the National Research Council Library, the National Library of Canada, the Library of Parliament, and the Supreme Court Library. Academic libraries at the University of Ottawa and Carleton University round out the library resources in Ottawa.

An enterprising researcher who could afford to spend some time in Ottawa could obtain access to a considerable wealth of library resources. Responses from the faculty questionnaires do show some use of resources here, especially of the National Research Council Library and the National Library of Canada. While it is unlikely that these Canadian libraries would ever assume any direct responsibility as research libraries under any type of 3-R Plan, it would be worth-while to investigate the possibilities of formal agreements with these two major Canadian libraries to facilitate on-premises use and interlibrary loan activity. A pilot experiment with such international agreements could be tried under the sponsorship of the North Country Reference and Research Resources Council with support from the New York State Library.

Kingston.- The libraries in Kingston, Ontario, are reasonably close to the western part of the North Country, being some 65 miles from the Watertown area, but the survey did not reveal any use being made of resources here by North Country residents. Since Syracuse is just as close, and more convenient, it seems unlikely that such use would develop of Kingston libraries even if arrangements were formalized. Queen's University Library is the largest general collection in Kingston of potential interest. The Royal Military College and National Defense College of Canada hold library resources in military science, international relations, politics, and economics which might be of interest to a few specialists.

Montreal.--Montreal, with a metropolitan population of more than 2,000,000 persons, is the major city of the St. Lawrence valley and has extensive library resources both in academic libraries and special libraries. The *Directory of Special Libraries in Montreal* includes 160 libraries in the Montreal area and

38 in outlying towns.[3] While it would be unreasonable to expect that Montreal libraries would receive heavy use by North Country residents, even from the Plattsburgh area which is only 60 miles away by good interstate highways, there is clearly some use already on an individual basis of certain Montreal libraries. The library of McGill University, which has more than 860,000 volumes, is the one most often mentioned as a resource. Its medical and law libraries are the most convenient good collections in these specialties to residents of the Plattsburgh area. For those who can use French language resources, the collections at the Universite de Montreal are strong in medicine, law, theology, and science. Montreal also has a number of other academic institutions with libraries of moderate size, several public or quasi-public libraries with large collections, and special libraries covering a very wide range of subjects.

Since Montreal is the closest major city to the Plattsburgh area, is as close to the central part of the North Country as is Syracuse, and is both closer and more accessible to a considerable part of the North Country than is Albany, the increased availability of research library facilities there should be of interest to students and researchers. As an exploratory step, it might be desirable to work out a formal agreement between McGill University and the North Country Reference and Research Resources Council, with the support of the New York State Library, to facilitate use of University Library resources by North Country researchers both in person and by interlibrary loan. As in the case of the libraries in Ottawa, these agreements should be regarded as experimental and the results should be evaluated to see how effective they are before the program continues or expands.

Albany.--With its nearly four million volumes, the New York State Library in Albany is the largest public research collection available in the state outside of New York City. Its general policy stresses 1) complete service to state government, 2) service to state residents supplementary to that which they have available in public, academic, school, and special libraries, and 3) service as a library's library to central libraries of public library systems, academic libraries, and school libraries.

Earlier reports which analyzed the original 3-R Plan suggested an additional role for the New York State Library as the designated research library facility for a Hudson-Adirondack region including most of the North Country. Since that time the North Country Reference and Research Resources Council has been formed and the Capital District Library Council for Reference and Research Resources has been organized. The proposed research library facility for the Capital District would now consist of the combined resources of the State University at Albany, Union University, and Rensselaer Polytechnic Institute. Present expectations are that the New York State Library will concentrate on the statewide aspects of the reference and research program, will increasingly serve as a referral center for getting unfilled requests to appropriate libraries, and will function as a research library within the reference and research program only in certain limited subject areas.

Until such time as the proposed reference and research systems are more fully-developed, it is likely that the benefits that North Country researchers receive from the New York State Library will continue to be of the traditional variety. It is already the first library turned to for interlibrary loan by North Country libraries of all types. It is also the research library most frequently visited in person by North Country faculty researchers.

While the library resources of Albany, consisting of the New York State Library, other government departmental libraries, and academic libraries such as the State University of New York at Albany, Union, and Rensselaer Polytechnic do offer research collections of considerable scope, the city is simply too far away from the North Country, and too inaccessible due to poor roads and mountain driving, to allow more than limited direct use. If Albany were to be designated the research library center for the North Country, most of the benefits would need to come through loans or by transmitted information in one form or another. If this is the case, there seems to be no compelling reason why the North Country should not be served directly by the State Library, since the combined resources of the Albany area universities would not be of any great benefit to North Country users.

Syracuse.--For the western part of the North Country area, Syracuse is the most important center of library resources. It is convenient to the Watertown area by a good interstate highway. Potsdam and Canton, however, are another two hours drive over poorer roads, and Syracuse is much too distant from the eastern section of the area to be of any importance at all as far as direct use goes.

The Syracuse University Library contains about 660,000 volumes in a main building plus seventeen departmental and professional libraries. It was suggested originally as the research library center for much of central New York; later proposals detached the Rochester area. One early recommendation for the North Country area suggested that the western counties be attached to a system centering on Syracuse University. Other major library resources in Syracuse that contribute to its status as a major library center include the State University College of Forestry and the Upstate Medical Center at Syracuse University, and a substantial number of special industrial libraries. These latter, while they provide much research material of value, would be of little use regionally unless the individual libraries were brought into some kind of system. Under the leadership of the Syracuse chapter of the Special Libraries Association, a reference and research resources council is in the planning stages for Onondaga County.

As in the case of Albany and the New York State Library, the libraries in Syracuse, and Syracuse University in particular, attract a considerable number of North Country faculty in search of library materials directly or on interlibrary loan. Such direct use is not extensive now or likely ever to be extensive due to the distances to be travelled. Moreover, if the major means of access to the regional research libraries under the developing reference and research programs are to be by mail or by electronic display, there seems to be no special reason why part of the North Country area should be assigned to Syracuse if better and more complete resources exist in Albany or elsewhere in the state.

References

[1] William Vernon Jackson, Studies in Library Resources (Champaign, Illinois: Distributed by the Illini Union Bookstore, c1958), p. 43-50.

[2] Actually, there are now four shelf lists since a new one is being created for books classified by L.C.

[3] Special Libraries Association. Montreal Chapter. Directory of Special Libraries in Montreal, 7th edition. Montreal, The Association, 1966.

CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

The first six chapters of this report have presented the findings of a survey of library reference and research resources and services in the North Country area of New York State. While originally designed primarily to explore the role this area should take in the so-called 3-R Plan, this report has not limited itself entirely to the context of that proposed legislation since the legislative approach to establishing a network of reference and research systems in New York State has now been modified and the exact details of the budgetary approach have not yet been determined.

The public library systems and the academic and special libraries in the six-county area have long recognized that there are distinctive library needs at all levels in this sparsely populated area. With the hope that the 3-R idea might provide a means to satisfy these needs, they have begun to plan for cooperative programs that bridge type-of-library lines. To this end, the libraries have banded together in the chartered North Country Reference and Research Resources Council in order to create a group which can speak for the library needs of the area. The present survey is the major project which the Council has undertaken to sponsor so far, but other activities are underway or have been discussed. In fact, it is no exaggeration to state that the North Country Council already has a more active program than any of the other regional councils which have been formed under 3-R auspices, except the New York Metropolitan Reference and Research Library Agency, Inc., which has sought and received foundation support for setting up a permanent staff and office.

The Council has also continued to discuss legislative matters, both state and federal, which are of interest to the libraries of the region. The implications for the North Country of changes in the public library state aid law, the opportunities available to member libraries under the Higher Education Act, the changes in the Library Services and Construction Act, the possibilities of cooperative library use of existing and planned computer installations in North Country academic institutions, and the potential relationship of all area libraries to the data processing projects of the New York State Library and the State University of New York are topics which have come up for considered discussion and action at Council meetings. The traditional isolation of the North Country, at least in library matters, is breaking down, partly due to North Country Council activities.

Regardless of the exact form that the expansion of library cooperation takes in New York State, there is a strong desire in the North Country for an improved regional library network whereby local, area, and statewide library resources and services will be integrated and mutually supportive so that every potential library user will have access to needed information and materials. As previous chapters have shown, this will be an especially difficult problem in the North Country, since there is now no library in the area complete enough to be regarded as a general research collection, nor any single library which could assume a natural leadership role in a regional plan. Even taken as a whole, the library resources of the area do not now reach the research level except in a few limited fields, although efforts being made currently to build up library resources at several of the area colleges will, before many years have passed, greatly augment the research collections available in this area.

Institutional self-sufficiency in library materials, or even regional self-sufficiency, is, at any rate, impossible today. The continuing necessity for going outside the North Country region for access to certain kinds of research collections is obvious and the report of the Commissioner's Committee, on which the 3-R thinking is based, recognizes that no region will expect to achieve completeness. The real question to be answered is how the present collections can best be administered to achieve as high a degree of utilization as possible and how best to achieve access to library resources outside the region through some kind of formal administrative linkage. The North Country problem can be solved by maximizing use of regional resources (existing and to be acquired) through cooperative endeavors while, at the same time, coordinating these efforts with the work of other 3-R systems, and with expected statewide developments such as centralized cataloging, computer-based union lists, and facsimile transmission.

Regardless of the developments that may take place on the state or federal level aimed at making the availability of specialized research data and material independent of location, a major assumption of this report has been that the physical location of basic library materials is, and will continue to be, important for most users of reference and research resources and that anything that can be done regionally to facilitate ease of access is important. The North Country Council can find many developmental and cooperative activities to sponsor which are of great utility to the region and are not incompatible with eventual statewide and national developments. Even when the most sophisticated information transfer mechanisms become available to New York State and North Country library users, efforts put into the simpler forms of coordinated library activity will not be wasted since by far the largest use of library materials will probably continue to be through the more traditional book and journal format.

The North Country Council as a Registered 3-R System

In theory, the North Country Council, as it is now constituted, could continue to operate and to carry on a regional cooperative library program outside of the 3-R system network which is being organized by the New York State Library. Practically speaking, however, it cannot hope to prosper without the sanction and the financial support which will come to approved systems from the New York State Library. Since this is the case, it is necessary at this point to consider the standards which the New York State Library is in the process of establishing for 3-R systems.

The regional councils which have been organized thus far in New York State vary considerably in stage of development and in program. The New York State Library has the responsibility for setting standards for regional reference and research systems, for granting registration to those which meet these standards, and for coordinating the efforts of these registered councils in a statewide plan. A draft of the proposed standards, as prepared by the State Library staff and an advisory committee of representatives from the various councils, was developed in September, 1966. After a final version is approved, the State Library will make establishment grants of $25,000 to those councils which meet registration standards. In future years, as additional funds are budgeted for the 3-R network, money for demonstration projects and program support will be available.

The North Country Council, as it is now constituted, would not be able to meet the proposed standards for 3-R systems. Unless these standards are modified in the final version, or unless some type of provisional registration is allowed, the North Country Council will have no choice but to join a larger system based on Syracuse or Albany if it is to participate in the state's 3-R network.

Among the specific minimum requirements in the proposed standards for registration are these:

1. A minimum area population of 750,000. (The North Country area has only 375,000.)

2. At least five chartered degree-granting institutions of higher education at the four-year level. (The North Country area has only four.)

3. One academic institution with a library of 200,000 volumes or more and a graduate program including the doctorate. (None of the North Country colleges has a library this large although one does offer the doctorate.)

The purpose of the New York State Library and its advisory committee in setting these standards was to keep as close as possible to the recommendations of the Commissioner's Committee but also to see that 3-R systems were as few and as large as possible. In this way money would not be wasted on repetitive basic administrative costs, systems would have a program broad enough in scale to attract qualified professional staff, and users would have access to library resources of considerable variety and depth.

The North Country Council has raised questions about the proposed registration standards and has presented arguments for modifying these standards so that the Council, as it presently exists, can qualify as a registered 3-R system.

This survey report agrees with the North Country Council that there are valid reasons for having a separate regional program in this area. The arguments for separate status are based not only on geographic and demographic factors but also on the fact that the Council has already shown that it has workable plans and an organization capable of, and interested in, carrying them out.

It is the recommendation of this survey report that the New York State Library recognize the North Country Council as a reference and research resources system within the definitions of the statewide plan and that the standards drawn up for systems be modified in such a way that at least provisional registration be permitted for this Council. This provisional status would allow the Council to receive an establishment grant but would require that it show evidence of a workable program worthy of support before full registration is granted.

Although the North Country area may never reach the minimum population level in the proposed standards it could easily, through formal cooperative agreements, meet the minimum resources level. Furthermore, it has already shown evidence of initiative in drawing up a regional program of service suited to the conditions of the area. Even though logic is seemingly on the side of higher minimum standards and larger units, a close examination of the North Country area and of its needs shows that there is sufficient cause here for an exception. Lowell Martin's advice on general statewide library planning and localism is relevant here:

> . . . the roots must go down to the community, even if this does not make for an orderly schematic plan. Don't get carried away by the neat logic of a larger and larger unit, farther and farther away from the people, or you will end up with an empty shell.[1]

In return for granting provisional registration, the New York State Library should require the North Country Council to present a plan of service which will:

1. Show evidence that contacts are developed and maintained with the 3-R systems in the Syracuse and Albany areas and that consideration is given to securing services there which are beyond the ability of the North Country to provide.

2. Show evidence that formal cooperative agreements for use of library materials are being drawn up among the major academic libraries so that these resources can, in fact, be regarded as equivalent to the single strong collection called for in the standards.

The North Country Council itself, as further evidence to the State Library that it is responding to a real regional need, should:

1. Endeavor to secure financial support from member institutions to augment state funds.

2. Establish working relationships with the North Country Economic and Cultural Council, with any educational laboratories that develop in the area, and with other bodies having regional educational and developmental goals.

A Permanent Staff for the North Country Council

If the North Country Council is approved as a 3-R system, and if it receives an establishment grant, it is then faced with the problem of finding staff to carry out the cooperative library program. A program of the size needed in the North Country cannot be accomplished by committees alone; full-time professional direction will be needed. It is recommended that the Council take steps to establish a permanent office, with a director and a staff, to implement the decisions of the Council, to carry out some of the desired projects directly or arrange to have them done by others, to maintain liaison among all libraries and library interests in the area, and to negotiate for funds to undertake further research and development activities.

Those projects which have already been started by the Council, for example the Union List of Historical Materials, demonstrate clearly the problems of trying to accomplish even a limited regional cooperative program through volunteer efforts. Almost any project worth doing will involve finding money and staff time beyond that ordinarily available through institutional library budgets. Since the direct financial support of 3-R systems by the New York State Library will be limited during the first years, it will be the responsibility of the Council, and its director, to secure additional outside money. Such money, no matter how plentiful it seems to be today, does not come easily. It takes a considerable amount of time and skill simply to draft proposals and negotiate agreements, not to mention carrying out the actual task once the money is on hand. The North Country libraries do not have enough people who can devote this amount of time and effort away from their own jobs to work on Council projects no matter how willing they are to do so, or how obliging their institutions are about allowing time for such activity. The use of a board and volunteer committee structure to handle assignments is fine for some things but a permanent staff will be necessary if the Council undertakes a large-scale program involving cooperative agreements for library use.

Money for the establishment of such an office can come partly from the New York State Library under the 3-R program. Additional project money might also be available from the same source under Title III of the Library Services and Construction Act but grants under this Act would have to be made to one or both of the public library systems and not directly to the Council. Since State Library funds under both of these programs are limited, competition will be keen and the North Country Council cannot expect more than its fair share. The Library Research Title of the Higher Education Act offers a further possible source of funds although the proposed projects would have to involve research rather than mere program building. As examples of other current and potential programs, mostly deriving from federal aid, which have a possible bearing on regional library affairs and deserve attention, one can mention the State Technical Services Act, the Elementary and Secondary Education Act, and the Economic Opportunity Act. In addition to state and federal funds, it seems likely that foundations with regional North Country interests, such as the Miner Foundation and the Noble Foundation, might help with regional library development once they can be shown that the organizational structure exists to handle these activities.

For convenience, the office for the Council might be established originally as a research and development activity at one of the area colleges. The North Country Council, serving as sponsor and advisory board, could contract with the institution for space and staff, thus avoiding some of the problems of getting the program started. A near parallel exists in the North Country Economic and Cultural Council which is establishing centers at St. Lawrence University and Plattsburgh State College.

Recommendations for Council Projects

In the first six chapters of this report many statements have been made which suggest valuable cooperative projects that might be initiated under Council auspices. Some of these are extensions of plans already made by the Council. Others grow out of discussions with librarians and others during this survey. Still others are based on findings from the survey itself. A few of the projects already discussed by the Council are now underway through committee activity but most of them have been postponed because 1) the procedures and guidelines were not yet available for certain legislative programs which might provide support for the activities; 2) regional action was not feasible until there was some indication of the direction that state level activity would take; or 3) it was expected that this survey report would help the Council set up a coordinated program of developmental activities instead of a series of useful but unrelated projects.

If the major recommendations of this report are accepted and the North Country Council receives provisional or final registration under New York State Library standards for 3-R systems, the first step of the Council will be to develop, as suggested above, a program which will include the establishment of a permanent office and staff and will incorporate, as part of its initial program, some of the basic cooperative schemes discussed and desired by the Council. The kinds of activity suggested for action by Council, some for implementation when the establishment grant is available, and others for later consideration, can be summarized under four headings: 1) general administrative planning, 2) bibliographical aids and devices, 3) communication techniques, and 4) shared resources. The remainder of this chapter will discuss these activities under these four headings. They should be regarded not as separate projects, but as parts of an integrated cooperative program, even though some will necessarily be slower to develop.

General Administrative Planning

1. Permanent Council office and staff.--The necessity for establishing a permanent office and staff for the North Country Council has already been explained in the first part of this chapter. This recommendation takes priority over all others made. Indeed, many of the other recommendations depend on the establishment of such an office since their implementation requires time, attention, and funds that the Council cannot presently command.

2. Creating a joint research center library.--Some regional studies done in furtherance of the 3-R Plan have suggested that one library in each 3-R system be designated as a research center and one or more libraries as advanced reference centers, with the assumption that these libraries would be freely open to all scholars for on-premises use. This survey has indicated that there is no single library in the North Country with a collection of general research capability. There are at least three--St. Lawrence and the two State Colleges--which might be considered as advanced general reference centers and there are others, such as Clarkson and ATC, with strong collections in more narrow specialties.

Since the proposed minimum standards for 3-R systems call for a strong collection of at least 200,000 volumes to serve as a central resource, it is imperative that the Council develop formal agreements among some or all of these libraries so that their resources, considered jointly, can be equivalent to a general research collection. These agreements should go beyond present informal understandings on use and should involve a commitment on the part of institutional administrations to support a joint library program.

3. Reciprocal borrowing.--Most of the libraries in the North Country are already fairly generous in allowing borrowing privileges and use of materials on the premises by visitors. It is recommended that the Council take steps to regularize existing agreements and to encourage others. While reasonable precautions will need to be taken to insure equitable use, past experience at some academic libraries with an open door policy toward use by business and industry, by professional and technical persons, and by students or faculty from neighboring schools, has not caused any hardship. The extension of this service, even to the point of issuing a universal borrower's card, would go a long way toward eliminating barriers to information and would demonstrate that the Council's program benefits all qualified users and not only those affiliated with the academic institutions.

4. Involvement of library staff.--It has already been suggested that the involvement of all library staff members is vital to the success of a regional cooperative program. Participation in Council activities is, in itself, a form of training, but the Council should see that all library staff members, and not just the library directors, become aware of the cooperative projects and know enough about them to be able to make intelligent and consistent use of all area services and resources in accomplishing their work. One of the strong arguments for having a separate 3-R system for the North Country is that it will demand the involvement of all the library staff in a much more direct way than would participation, through a limited number of representatives, in a larger system based on Albany or Syracuse. North Country Council meetings have already been successful in providing a means by which librarians from the area can get acquainted with each other and with library problems of other institutions. From such acquaintance, cooperative agreements can easily grow.

5. Recruiting staff.--North Country libraries share the current nationwide problem of a shortage of qualified staff. The problem is perhaps more acute here than in other parts of the state since the area is remote from the

metropolitan centers to which librarians, like most other professionals, are attracted and since the libraries themselves are too small to offer the kind of career opportunities that attract and keep qualified staff.

If the North Country Council is registered as a 3-R system, it will be on trial to show how an area with so few trained librarians can provide the time, effort, and expertise necessary to carry out a large-scale cooperative program. If the Council can establish a permanent staff and find a good director, part of the problem will be solved. However, it is also recommended that the Council appoint a standing committee on personnel which will assist the various libraries in their staffing problems by keeping informed on vacancies and on possible candidates. This Committee could help coordinate recruiting efforts made by member libraries, such as pooling resources for advertising or for recruiting trips. This Committee could also tactfully assist administrative officers or boards when important head library jobs fall open and appointments are to be made. Since these head librarians will, of necessity, play an important role in Council activities, the Council has every reason to be interested in seeing that the best possible appointments are made.

Since the Council speaks for the entire region, it is quite likely that this Committee, by sharing information and advice on a regional basis, could help individual institutions see more clearly some of the factors, such as low salary scales and limited library support, that are contributing to personnel shortages.

6. Centralized processing.--One topic which has come up for discussion at Council meetings but on which no action has been taken, is the establishment of regional centralized processing. In view of other activities in New York State in the processing field which have implications for North Country libraries, it is recommended that no plans be made to set up any regional service until the full implications of these other activities have been explored and discussed: 1) the possible extension of North Country Library System processing to other areas and other types of libraries; 2) the effect (and probable timing) of the State University of New York's plans for a central library service facility for acquisitions, cataloging, and preparation of library materials for member libraries; and 3) the scope of the New York State Library's statewide centralized processing plan for public, and possibly academic libraries.

Bibliographical Aids and Devices

1. A regional union catalog.--The development of a complete regional union catalog of library holdings in the North Country, based on shelf list entries, has been discussed at some length by Council. Such a union catalog is not recommended at this time. Since there is already a National Union Catalog listing holdings in various regions of the country, and since the development of statewide union catalogs by the New York State Library and the State University of New York are possibilities, the need for a complete regional union catalog is questionable.

2. A regional union list of serials.--In the last few years, many regional lists of serials have appeared in various parts of New York State. The State University of New York is currently producing such a list for all of its units. The New York State Library is continuing with plans to issue a union list of its serial holdings. The new third edition of the Union List of Serials is already available in several North Country libraries. In view of these developments, there may be some question as to the need for a regional list of periodicals, serials, selected documents, and other specialized items available in the North Country. However, it is felt that the creation of such a list would be desirable, and that it should be accompanied by formal

agreements for cooperative acquisition, use, and retention of such materials. It is recommended that the Council give high priority to the creation and distribution of such a regional union list, being very specific about the limitations as to types of material to be included.

3. Catalog card exchange.--It is recommended that the exchange of selected main entry cards, which now includes St. Lawrence, Clarkson College, Potsdam State College, and the Agricultural and Technical College at Canton, should be expanded, initially to include Plattsburgh State College, and possibly later to include the two public library systems, either at the headquarters or at the central libraries. The extension of the service should be encouraged and coordinated by the Council but should ultimately be supported financially by the member institutions themselves.

4. Guide to resources.--It is recommended that high priority be given to the compilation and publication of a guide to regional library resources and services, including also information about available resources in nearby major cities such as Syracuse, Albany, Kingston, Ottawa, Montreal, and Burlington. Such a guide would not only be for the use of librarians but should also be distributed to the public. It should include not only information about resources but about regulations for use, both directly and on interlibrary loan. This project could be administered by the Council's new office, perhaps calling on the services of an outside consultant to compile the first edition, which could then be frequently revised by the office staff.

5. Bibliographical collections.--High priority should be given in the cooperative program to assuring that all of the major libraries, including at least the four large academic libraries and the two public library systems, have adequate bibliographical collections to provide access to materials, and that the staff members know how and when to use them. As the survey has shown, bibliographical collections are not notably strong now in North Country libraries. The Council might consider subsidizing the purchase of certain bibliographical materials for the libraries that have limited book funds, in order to assure that bibliographical information is widely available. These collections should especially include all available guides to resources and union lists covering parts of New York State.

6. Union lists of historical materials.--One of the first Council projects was to undertake the compilation and publication of a union list of North Country historical materials. Since some money is already available for publication of this list, further expenditures for this project would probably not be included in the Council's proposals for state support. The extension of this list to cover manuscripts would not be a high priority item and should be undertaken only if a special program grant can be secured to cover expenses.

Improved Communications Techniques

1. Teletype service.--Teletype facilities are now available at the public library system headquarters and at Potsdam State College. It is recommended that additional major libraries in the region be equipped with teletype facilities, and that funds for the initial installation be included in the Council's plans to set up an office and initiate a cooperative program. After a trial period, the effectiveness of the teletype should be evaluated and, if it warrants continuation, the cost should be borne by the member institutions, not by the Council. Use of teletype would speed up interlibrary loan not only within the region but also to the New York State Library. It could also serve to tie the libraries closer together by providing fast transfer of reference requests and other information. Installation of teletype in additional libraries should be accompanied by a thorough training program so that the

possibilities of the system will be obvious to all those concerned. Otherwise use may be so limited that the experiment will fail.

2. Expanded telephone service.--Since libraries in the North Country are widely separated, the use of telephone contact between them is sometimes limited to urgent matters. It is not routine practice, for instance, for reference librarians to call other libraries for information if toll calls are involved. As a means of encouraging interchange of ideas and information between libraries and of making reference information quickly available to patrons, it is recommended that the Council investigate the installation of area-wide toll-free phone service between libraries. Again, funds for the initial installation and the expense of the trial period of service could perhaps be included in the Council's initial program request but, if the service proves useful, the various libraries and institutions should be willing to absorb the costs.

3. Photocopy service.--While most of the libraries already have some sort of photocopy equipment and service, a well-organized cooperative program will require that the Council encourage or even subsidize the purchase or lease of better equipment for some libraries. At present, the potentialities of photocopy service for better utilization of existing library resources is not realized because photocopy service is inadequately handled in some libraries. The Council program should also include an objective evaluation of the way this service is being handled currently and of ways to improve it. These tasks could be done by an outside consultant.

4. Mail and delivery service.--In getting a regional cooperative program started, some attention also needs to be given to the simple mechanics of mailing and shipping. Even limited observation indicates that many libraries are poorly equipped for such simple tasks as wrapping and mailing interlibrary loans. The expense of improving this situation would be small but the improvement would be great.

It is also recommended that Council should begin discussing ways in which interlibrary delivery service might fit into a regional cooperative program and to collect data about the potential volume of such service. While the U.S. mail offers probably the best solution to most transfer of materials, there are parcel delivery services which might be considered for certain kinds of shipments. Also, if the transfer of materials reaches a great enough volume, it should be possible to integrate some delivery service with the regular routes of bookmobiles and delivery trucks working out of the two public library systems.

5. Facsimile transmission.--Interest has been expressed at Council meetings in various kinds of facsimile transmission that are being developed by such companies as Magnavox and Xerox. Some North Country librarians feel that this technological development offers the best solution to the problems of augmenting limited resources. It seems, however, premature to expect facsimile transmission to solve many of the library problems of the North Country. The New York State Library has already decided to use some of its current 3-R appropriation to experiment with facsimile installation in selected libraries around the state and one or possibly two North Country libraries will be included. Since any widespread use of facsimile transmission is going to be initiated and financed at the state level, this is one aspect of cooperation that the Council should keep informed about but need not take any action on at present.

6. Library applications of data processing.--The Council has already been discussing ways in which computer installations in some North Country academic institutions might be used to improve the utilization of regional library

resources through such things as making book catalogs. Again, since any major breakthrough in library applications of data processing will be at the statewide, if not the nationwide level, it is not practical for libraries as small as those in the North Country to put much stress on this aspect of library cooperation initially. It is recommended that the Council keep all librarians in the area current about developments which potentially will affect area libraries but that it not get directly involved at this time with library applications of data processing. Such developments may well come later, however, when the North Country library cooperative program is firmly established and the direction which state level activity will take has been made clear.

Shared Resources

1. Periodical resources.--As suggested in the chapter on periodical resources, Council should give high priority to setting up a coordinated periodicals program so that the resources of the area can be systematically built up through the purchase of additional copies, new titles, and back files. This program should be based on approved agreements for sharing the use of periodicals through loans and photocopies. Part of the justification for a regional union list of serials is that it would serve as a base for this cooperative program. Some clearinghouse operation at the Council level is needed to assure that desirable titles are available in the area but also to avoid needless duplication.

2. Reference resources.--The situation with regard to reference resources is the same as with periodicals. The chapter on reference resources has suggested desirable cooperative projects involving reference materials and services. Efforts at reference coordination need not involve direct costs to the Council, since most of the new material would be paid for by the individual libraries, perhaps out of special grants such as those under the Higher Education Act. Any program to improve area reference resources will need also to include means of stimulating interlibrary use. While it may not be necessary to develop a formal system of reference referral, the reference staffs should be encouraged to make liberal use of other library personnel and resources in the area by telephone and teletype in answering local queries.

3. Subject specialization.--A long-range goal, and a matter of some priority, would be to recognize subject specializations among the various major libraries and to have these libraries assume the added costs of building and maintaining strong collections in designated fields. The recommendation has already been made that the New York State Library consider the combined resources of the academic libraries in the Potsdam-Canton area as equal in strength to the resource library of 200,000 volumes called for in the registration standards. Such recognition carries with it the obligation to work out formal agreements so that subject specialties can be recognized and supported. Other area libraries have announced a willingness to cooperate in this manner by increasing their book budget in certain areas. Since a good plan for subject specialization requires considerable negotiation and discussion, a detailed program can probably not be included in the initial proposals of the Council. The emphasis during the establishment grant period should be on planning for the subject specialization program, not on carrying it out at once. Specialties must be carefully related to the needs of the individual libraries since strong collections should not be built up where they will not be used. Otherwise, the host institutions would soon question the added expense. Any scheme for designating subject specialties should also allow for periodic review and change.

4. Interlibrary loan.--The percentage of desired interlibrary loans that can be handled within the region could be raised considerably if the recommendations for improved communications and cooperative agreements listed above

are accepted. Although the emphasis on interlibrary loans has always been primarily on research level materials and photocopies, there is still a great need for borrowing the more ordinary kinds of material in the North Country. It would be of tremendous utility to North Country library users to have a system of easy interlibrary loan for the more ordinary kinds of material for undergraduate use and for the interested adult reader. It is recommended that one of the activities of the Council be to encourage and facilitate interlibrary loans within the region of materials which do not necessarily meet the criteria set up under the Interlibrary Loan Code but are nevertheless essential to readers. If a large proportion of loans of this kind can be supplied within the region, recourse to research libraries elsewhere in the state for these items will not be necessary. Interlibrary loan service could be vastly improved in the North Country at relatively little cost through cooperation and a liberalized regional code for the loan of non-research items.

5. Realignment of resources.--As the cooperative program expands, it may be desirable to arrange for transfer of certain categories or groups of books and materials from a library where they are no longer needed to a library where they will be of more use. Regional coordination of this activity is obviously important and is, in fact, already going on. Examples of such realignment of resources are the already agreed upon transfer of agricultural documents from St. Lawrence University to the Agricultural and Technical College at Canton and the deposit at Paul Smith's College of forestry documents not needed at St. Lawrence and Potsdam. Careful analysis of library holdings will reveal many more cases in which individual books, sets, and partial files of periodicals might better be transferred to another library.

6. Shared cataloging.--The limited staff available for cataloging in area libraries has led to suggestions, especially among the Canton-Potsdam schools, that agreements be worked out whereby original cataloging, and cataloging involving special languages, might be handled cooperatively. Here again is a useful, if perhaps temporary, program that would not add costs to present operations but needs some coordination at Council level to achieve maximum utility. In view of the likely development of centralized processing for public libraries, and perhaps academic libraries, under the State Library's plans, or more narrowly, under the State University of New York's plans, it would be unwise to devote any major effort at this time to a regional program, however.

7. Use of Canadian libraries.--An earlier chapter of this report has suggested that the Council, with the approval and possible support of the New York State Library, seek to establish formal agreements for the use of certain library resources in Montreal and Ottawa. This is consistent with the appeal at the Governor's Library Conference of June, 1965, for constructive planning that involves international use of library resources. While this would not be considered a high priority item initially, it would be worth later consideration once a viable North Country cooperative library system is established.

References

[1] Lowell Martin, "Principles of Statewide Library Planning," in Herbert Carl, ed., Statewide Long-Range Planning for Libraries, Washington, D.C., U.S. Office of Education, 1966.

APPENDIX I

FACULTY QUESTIONNAIRE: NORTH COUNTRY LIBRARY SURVEY

Name ______________________________ Academic Rank __________________

Institution _______________________ Department ____________________

Area of Specialization ____

1. Approximately how frequently have you used your college (or university) library since the beginning of the fall term?

___ More than once a week
___ A few times a month
___ About once a month
___ Less frequently

2. How would you rate the quality of the book collection available at your institution in your area of specialization?

____ Excellent ____ Good ____ Fair ____ Poor

3. Which of the following kinds of library resources do you also use regularly in your research and teaching?

___ Your personal library or subscriptions
___ Libraries of friends and colleagues
___ Collections in departments or research units
___ Private collections
___ Public libraries
___ Other (please specify) ____________________________________

____

____

4. Are you engaged in any research which is hampered by lack of adequate and convenient library resources? Yes___ No___

If yes, please describe briefly what type of library resources you lack. ____

____

____

5. Which of the following institutions have you visited personally to obtain materials not available locally which you needed for research?

___ Syracuse University
___ SUNY at Albany
___ New York State Library
___ University of Ottawa
___ Other (please specify) ____________________________________
___ McGill University
___ University of Montreal
___ University of Vermont
___ Cornell University

____

6. Has your college (or university) library borrowed material for your use on interlibrary loan from other libraries? Yes___ No___

7. How would you rate the facilities and services of your college (or university) library on the following points?

	Excellent	Good	Fair	Poor
Lighting				
Heating and ventilation				
Seating space				
Study carrels				
Condition of books				
Microfilm reading facilities				
Photocopying service				
Interlibrary borrowing				
Reserve books				
Periodical collection				

8. Are your teaching methods affected in any way by a lack of library materials? (Please explain)

____

____

____

____

9. Do you feel obliged to restrict class assignments because of library inadequacies? Yes___ No___

10. Are there plans for any new courses in your department that may require stronger library resources?

____

____

____

11. Are there plans to develop or strengthen your department for graduate studies? Yes____ No____

12. Are graduate studies here in your field restricted or made impossible by lack of suitable library resources? How, specifically?

13. Please list a few important titles such as periodical files or large sets to illustrate the kinds of material which you would like to see added to your library.

14. If there were to be established a state-aided central reference and research library in the North Country area to serve the library needs of scholars and research personnel, which of the following locations would you recommend as most desirable?

___ Watertown
___ Potsdam
___ Other ________________
___ Massena
___ Ogdensburg
___ Plattsburgh
___ Canton

Would you explain briefly your choice?

APPENDIX II

SELECTED REFERENCE BOOKS HELD AT SIX MAJOR NORTH COUNTRY LIBRARIES

1. Encyclopedias and Supplementary Works	SLU	CCT	PDS	PBS	CEF	NCS
Amer. Notes & Queries. 1941-1950, 1962-	*				X	
Canadian Almanac & Directory. 1847-	X	*		X		
Catholic Encyclopedia. 1950-1959.	X	X	X	X		
Enciclopedia Italiana 1929-1961.			X			
Enciclopedia Universal (Espasa), 1907?-33	X		X	X		
Europa Year Book. 1946-	X	*	X	*		*
Facts on File. Oct. 30, 1940-	X		X	X	X	X
Grand Larousse Encyclopédique. 1960-1964.			X			
La Grande Encyclopedie. 1886-1902.	X	*				
Der Grosse Brockhaus. 16.aufl. 1952-1957.	X	X	X			
Jewish Encyclopedia. 1901-1906.	X	X	X	X		
Notes and Queries. 1849-		X	*			
Universal Jewish Encyc. 1939-43.	X		X	X		
Worldmark Encyc. of the Nations. 2d. 1965.	X	X	X	X	X	X

2. Biographical Dictionaries and Indexes	SLU	CCT	PDS	PBS	CEF	NCS
Allgemeine Deutsche Biographie. 1875-1910.			X			
Biographie Universelle. (Michaud) 1843-65.						

2. Biographical Dictionaries and Indexes (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
Biography Index. 1946-	X	X	X	X	X	X
Concise Dict. of Nat. Biog. 1948-		X	X	X	X	
Dict. of American Biog. 1928-1958.	X	X	X	X	X	X
--- Supp. 1.	X	X	X	X	X	X
--- Supp. 2.	X	X	X	X	X	X
Dict. of Nat. Biography 1921-59.	X	X	X	X	X	
--- 1st Supp.	X	X	X	X		
--- 2nd Supp.	X	X	X	X	X	X
Dict. de Biographie Francaise. 1933-	X					
Hoefer. Nouvelle Biographie Generale. 1853-66.	X					
U.S.--Cong. Biog. Direct. of the Amer. Congress, 1774-1961. 1961.	X	X	X	X	X	X

3. Dictionaries	SLU	CCT	PDS	PBS	CEF	NCS
Craigie. A Dict. of Amer. Eng. 1936-1944.	X		*	X	X	
A Dict. of Americanisms on Hist. Principles. 1951.	X	X	X	X	X	X
Evans. Dict. of Contemp. Amer. Usage. 1957.	X	X	X	X	X	X
Fowler. Dict. of Mod. Eng. Usage. 1965.	X	X	X	X	X	X
Mencken. The Amer. Lang. 4th ed. 1936-48.	X	X	X	X	X	X
--- Supp. I.	X	X	X	X	X	X
--- Supp. II.	X	X	X	X	X	X
Murray. New English Dict. 1888-1933.	X	X	X	X		
Partridge. Dict. of Slang. 5th ed. 1961.	*	*	X	X	X	X
Shankle. Current Abbreviations. 1945.		X				

4. Maps and Atlases	SLU	CCT	PDS	PBS	CEF	NCS
Adams. Atlas of American History. 1943.	X	X	X	*	X	X
Encyclopedia Britannica World Atlas. 1963.	*	*			*	
Lewis. American Oxford Atlas. 1951.	X		*	X	X	
Rand McNally Commercial Atlas. 96th ed. 1965.	X	X		X		
Shepherd. Historical Atlas. 9th ed. 1964.	X	X	X	X	X	X
The Times (London) Atlas of the World. 1955-1959.	X	X	X	X	X	

5. Indexes to Magazines, Newspapers and Books	SLU	CCT	PDS	PBS	CEF	NCS
Bibliographic Index. 1938-	X	X	X	X	X	X
Book Review Digest. 1905-	X	X	X	X	X	X
Brit. Humanities Index. 1962-	X					
Brit. Tech. Index. 1962-		X				
Canadian Period. Index. 1948-	X		*			
Catholic Period. Index. 1930-33-						
Essay & General Literature Index. 1900-33-	X	X	X	X	X	X
Index to Book Reviews in the Humanities. 1960-	X		X	X		
New York Times Index. 1913-	X	X	X	X		X
Poole's Index, 1802-1906. 1888-1908.	X	X	X	X	X	
Readers' Guide, 1900-1905-	X	X	X	X	X	X
--- 19th Cent. Readers' Guide. 1890-1922. 1944.	X		X		X	X
Soc. Sciences & Humanities Index. 1907-15-	X	X	X	*		
Subj. Index to Period. London. 1915/16-1961.	*					

5. Indexes to Magazines, Newspapers and Books (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
Sutton. Speech Index. 1935.	X		X			X
--- Supp. 1935-55. 1956.	X		X		X	X
--- Supp. 1956-61. 1962.	X		X	X	X	
Times (London) Literary Supp. 1902-		*	*	*		

6. Lists of Magazines and Newspapers	SLU	CCT	PDS	PBS	CEF	NCS
American Newspapers, 1821-1936. 1937.	X					
Ayer's Directory of Newspapers and Period. 1880-				X	X	
Brigham. Hist. & Bib. of American Newspapers. 1962-	X		X			
Brit. Union Cat. of Period. 1955-1958.	X					
--- Supp. to 1960. 1962.	X					
New Serial Titles (L.C.). 1955-	X	X	X	*		
Ulrich's Period. Directory 11th ed. 1965.	X	X	X	X	X	X
Union List of Serials. 3d ed. 1965.	X	X	X	X		
--- Supp. 1941-43.	X	X				
--- Supp. 1944-49.	X	X				

7. Bibliographies	SLU	CCT	PDS	PBS	CEF	NCS
American Cat., 1876-1910. 1880-1911.	X		X			
Brit. Museum--Dept. of Pr. Books. Gen. Cat. 1931-54.						
--- Cat. of Pr. Books, 1881-1900. 1946-	X					
--- Supp. 1900-1905. 1950.	X					
--- Cat. of Books . . . to 1640. 1884.						

7. Bibliographies (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
British National Bibliog. 1950-		X	X	*		
Collison. Bib. Services. . . 1950-1959. 1961.			X			
Collison. Bibliographies. 2d ed. 1962.				*		
Cumulative Book Index, 1928- 1933-	X	X	X	X	X	X
Evans. Amer. Bibliog. (14v.) 1903-1934, 1955-1959.	X		X	X		
France--B.N. Cat. Gen. des Livres Impr. Aut. 1900-						
Guide to Catholic Literature. 1888/1940						
Handbook of Latin American Studies, 1935- 1936-	*		X	X	X	
London Library. Catalogue. 1913-14.						
--- Supp. 1913-1950.						
--- Subj. Index. 1953.						
Malcles. Sources du Travail Bibliog. 1950-58.			X			
Morrison. Index of Wing's STC. 1955.	X			*		
National Union Catalogue. 1948-1952.	X	X	X	X	X	
--- 1953-1957.	X	X	X	X	X	X
--- 1958-1962.	X	X	X	X	X	X
--- 1963.	X	X	X	X	X	X
--- 1964.	X	X	X	X	X	X
Pollard. Short-title Cat. 1475-1640. 1926.	X		X			
The Ref. Cat. of Cur. Lit. London. 1874-	X	X				
Sabin. Dict. of Books Rel. to America. 1868-1936.	X		X			
Sonnenschein. Best Books. 3d ed. 1910-35.						
U.S.--L.C. Cat. of Books . . . to July 31, 1942. 1942-46.	X	X	X	X	X	
--- Supp. 1941-47. 1948.	X	X	X	X	X	
U.S.--Nat. Hist. Pub. Comm. Guide to Arch. & Mss. in the U.S. 1961.	X		X	X	X	X

7. Bibliographies (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
U.S.--Supt. of Docs. Monthly Cat. 1895-	X	X	X	*	*	
The U.S. Cat. 4th ed. 1928.	X	X	X	X	X	X
Wing. Short Title Cat., 1641-1700. 1945-51.	X		X	*		

8. Philosophy, Psychology, Religion	SLU	CCT	PDS	PBS	CEF	NCS
Amer. Theol. Lib. Assoc. Bib. of . . . theses in religion. 1951.						
Baldwin. Dict. of Philos. & Psych. 1901-05.	X		*	X		
Barrow. Bibliog. of Bibliog. in Religion. 1955.	X					
Bibliog. of Philosophy 1954-	X					
Burr. Crit. Bibliog. of Religion in Amer. 1961.	X	X	X	X		X
Butler. Lives of the Saints. 1956.	X		X	X	X	
Concise Ency. of West. Phil. & Philosophers. 1960.	X		X		X	X
Contemporary Psychology. 1956-	X		*	*		
Daniel. Prof. Problems in Psych. 1953.	X		X	X		
Diehl. Religions, Mythologies, Folklores. 1962.	X		X	X	X	
Enciclopedia Filosofica. 1957.						
Encyc. of Religion & Ethics. 1951.	X	X	X	X		
Hastings. Dict. of the Bible. Rev. ed. 1963.	X	X	X	X	X	X
Index to Religious Period. Lit., 1949- 1953-						
The Interpreter's Bible. 1951-57.	X	X	X	X		X
Nelson's Comp. Concordance of the Bible. 1957.	X					X
Psychological Abstracts. 1927-	X	X	X	X		

8. Philosophy, Psychology, Religion (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
Psychological Index. 1895-1936.			*			
--- Abstract Ref., v. 1-35, 1894-1928. 1940-41.			*			

9. Art and Architecture	SLU	CCT	PDS	PBS	CEF	NCS
Allgem. Lex. der Bildenden Kunstler. 1911-1947.			X			
--- Supp. 1950.	X		X			
Amer. Architects Direct. 2d ed. 1962.			*	*		X
American Art Directory. 1898-	X	X	X	X	X	X
Art Index. 1929-	X		X	X	X	X
Benezit. Dict. Crit. des Peintres. 1948-1955.			*	*		
Chamberlin. Guide to Art Ref. Books. 1959.	X	X	X	X	X	X
Dict. of Mod. Painting. Aug. ed. 1964.		X	X	X	X	X
Encyc. of World Art. 1959-	X	X	X	X	X	X
Mallett's Index of Artists. 1935.	X		X	*	X	
Merritt. Building Constr. Hdbk. 2d. ed. 1965.	*	*				*
Monro. Costume Index. 1937.				X	X	X
--- Supp. 1957.			X	X	X	X
Monro. Index to Repro. of Amer. Paintings. 1948.	X		X	X	X	X
--- Supp. 1949-61-	X		X	X		
Monro. Index to Repro. of European Paintings. 1956.	X		X	X	X	X
Myers. Encyc. of Painting. 1955.			X			X
N.Y. Met. Mus. of Art--Lib. Cat. 1960.						
--- Supp. 1962-						

9. Art and Architecture (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
N.Y. Graphic Soc. Fine Art Repro. 1961.	*	*	X	*	X	X
N.Y. Hist. Soc. Dict. of Artists in Amer. 1564-1860. 1957.	X		X	X	X	X
Ramsey. Architectural Graphic Stds. 5th. 1956.		*		X	X	X
Sturgis. Dict. of Arch. & Building. 1901.					X	

10. Literature and Theater	SLU	CCT	PDS	PBS	CEF	NCS
Arms. Poetry Explication. 1962.	X	X	X	X	X	
Bateson. Cambridge Bibliog. of Engl. Lit. 1941-1957.	X		X	X		X
The Best Plays of . . . 1899-	*	*	X	X	*	X
Blanck. Bibliog. of Amer. Lit. 1955-63.	*	X	X	X		
Cambridge Hist. of Amer. Lit. 1917-21.	X	X	X	X		X
Cambridge Hist. of Eng. Lit. 1907-32.	X	X	X	X	X	X
Cook. Short Story Index. 1953.	X	X	X	X	X	X
--- Supp. 1950-54. 1956.	X	X	X	X	X	X
--- Supp. 1955-58. 1960.	X	X	X	X	X	
--- Supp. 1959-63. 1965.	X		*	X	X	
Enciclopedia dello Spettacolo, 1954-62.	X		X			
Engl. Assoc., London. Year's Work in Engl. Studies. 1921-	X		*	*		
Fidell. Play Index, 1953-1960. 1963.	X	X	X	X	X	X
Firkins. Index to Plays, 1800-1926. 1927.	X					
--- Supp. 1927-34. 1935.	X			X		
Gohdes. Bibliog. Guide to Lit. of the U.S.A. 1963.	X	X	X	X	X	X
Internat. Motion Picture Almanac. 1929-			*			*

10. Literature and Theater (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
Lit. Hist. of the U.S. 3d ed. 1964.	X	X	X	X	X	X
Mod. Humanities Res. Assoc. Ann. Bibliog. of Engl. Lang. & Lit. 1921-	X		X	*		
Mod. Lang. Assoc. of Amer. Amer. Lit. Mss. 1960.	X		X			
Odell. Annals of the N.Y. Stage. 1927-	*		X	*		
U.S.--Copyright Off. Motion Pictures, 1894-1959. 1951-60.						X
West. Play Index, 1949-1952. 1953.	X	X	X	X	X	X
Woodress. Dissert. in Am. Lit., 1891-1955. 1957.	X		X	X		X
--- Supp. 1956-61. 1962.	X		X	X		X
Writers' Program. N.Y. The Film Index. 1941.						
Year's Work in Mod. Lang. Studies, 1929/30-. 1931-	X		*	*		

11. Music and the Dance	SLU	CCT	PDS	PBS	CEF	NCS
Apel. Harvard Dict. of Music. 1951.	X	X	X	X	X	X
Baker's Biog. Dict. of Musicians. 1958.	X	X	X	X	X	
--- Supp. 1965.			X	*	X	
Beaumont. Complete Book of Ballets. 1937.	X		X	*		
Beaumont. Ballets of Today. 1954, 1955.						
Chujoy. The Dance Encyc. 1949.	X			X		
Duckles. A Guide to Ref. Mat. on Music. 3d. ed. 1955.			X			
Grove's Dict. of Music & Musicians. 5th ed. 1960-61.	X	X	X	X	X	X
--- Supp. 1961.	X	X	X	X	X	X
Guide to Dance Period. 1931-35-	X					
Magriel. A Bibliog. of Dancing. 1936.						

11. Music and the Dance (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
--- 4th Supp. 1936-40. 1941.						
Minn. Pub. Lib. Index to Folk Dances. 1936.				X		
--- Supp. 1949.						
The Music Index. 1949-			X			
Musik in Geschichte und Gegenwart. 1949-	X		X	X		
New Oxford Hist. of Music 1954-60.	*		X	X	X	X
Sears. Song Index. 1926.			X			
--- Supp. 1934.			X			
Thompson. Internat. Cycl. of Music... 9th ed. 1964.	*	*	X	X	X	X

12. General and Biological Science	SLU	CCT	PDS	PBS	CEF	NCS
Agricultural Index. 1919-		*		X	X	
Biological Abstracts. 1926-	X	X	X	*		
Blake. Geog. Guide to Floras of the World. 1942-	X		X			
Blanchard. Lit. of Ag. Research. 1958.			*			
Gray. Ency. of the Biol. Sciences. 1961.	X	X	X	X	X	X
Harvard Univ. Harvard List of Books in Psych. 1964.	X		X	X	X	X
Hawkins. Sci. Med. & Tech. Books Pub. in U.S.A. 1958.	X	X				*
Indust. Research Labs of the U.S. 11th ed. 1960.	X	X	*			X
Jacobs. Chem. & Tech. of Food & Food Prod. 2d. 1951-						
McGraw-Hill Encyc. of Sci. & Tech. 1960.	X	X	X	X	X	X
Meisel. Bib. of Amer. Nat. Hist... 1769-1865. 1924-29.	X					
Poggendorff's Biog.-Lit. Handworterbuch. 1926-62.	X					

12. General and Biological Science (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
Sarton. Introd. to the Hist. of Science. 1927-48.	X	X	X	X		
Sci. & Tech. Socs. & Insts. of U.S. & Canada. 1961.	X		X	X		
Smith. Guide to Lit. of Zoological Sci. 6th. 1962.	*		X	X		
Space Encyclopedia. 2d. ed. rev. 1960.		X	X	*	X	X
Technical Book Review Index. 1917-1928, 1935-	X	X	*			X
Van Nostrand's Scientific Ency. 3d ed. 1958.	X	X	X	X	X	X
Zimmerman. Sci. & Tech. Signs & Symbols. 2d. 1949.		X			X	

13. Physical Science	SLU	CCT	PDS	PBS	CEF	NCS
Aerospace Year Book. 1919-		*		*		
A.S.T.M. Book of A.S.T.M. Standards. 1939-		X				
App. Science & Tech. Index. 1958-		X	X	X	X	
Beilsteins Handbuch der Organischen Chemie. 1918-	X	X		X		
--- Supp. 1. 1928-56.	X	X		X		
--- Supp. 2. 1941-57.	X	X		X		
--- Supp. 3. 1958-65.	X	X				
Besserer. Guide to the Space Age. 1959.		X		X	X	X
Bolton. Select. Bibliog. of Chem., 1492-1892. 1893-1904.	X					
Chemical Abstracts. 1907-	X	X	X	*		
Clark. The Encyc. of Chemistry. 1957.	X	X	*	X	X	
--- Supp. 1958.	X	X	*	X	X	
Crane. Guide to the Lit. of Chem. 2d ed. 1957.	X	X	X	X		
Dict. of Guided Missiles & Space Flight. 1959.					X	X
Encyclopaedic Dict. of Physics. 1961-64.		X	X	X	*	

13. Physical Science (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
Engineering Index. 1892-		X				
Geological Soc. of Amer. Bibliog. & Index of Geol. Exclusive of N. Amer. 1924-	X		*			
Gmelins Handbuch der Anorganischen Chemie. 1924-65.	*	X				
Gray. Dict. of Physics. 1958.	X				X	X
Heilbron. Dict. of Organic Compounds. New ed. 1953.	X	*	X	*		
Henney. Radio Eng. Hdbk. 5th ed. 1959.	*					X
Internat. Dict. of App. Mathematics. 1960.		X	X	X	X	X
Internat. Dict. of Physics & Electronics. 2d. 1961.	X	X	X	X	*	*
Jane's All the World's Aircraft. 1909-		*	*	*	X	X
McEwen. Encyc. of Nautical Knowledge. 1953.					X	X
Mellon. Chem. Pubns. 4th ed. 1965.	X	X	X	X		
Mellor. Treatise on Inorg. & Theoret. Chem. 1922-37.	X	X	*			
--- Supp. 1956-	X	X	*			
Merck Index of Chemicals & Drugs. 7th ed. 1960.	X	X	X	X	X	X
Nat. Research Council. Int. Crit. Tables. 1926-33.	X	X	X	X		
Nickles. Geologic Lit. of N. Am., 1785-1918. 1923-31.	X		X			
Nuclear Science Abstracts. July, 1948-	*	X	*			
Parke. Guide to the Lit. of Math. & Physics. 2d. 1958.	X	X	X	X		
Pearl. Guide to Geologic Lit. 1951.	X		X	X		
Sarton. A Guide to the Hist. of Science. 1952.	X	X	X	X		
Sci. Abstracts. A: Physics B: Elec. Eng. 1898-	X	X	*			
U.S.--Bur. of Mines. Minerals Yearbook. 1933-	X	X	X	*		X

13. Physical Science (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
U.S.--Patent Office Official Gazette. 1875-		X				
Whitford. Physics Lit. 1954.	X	X				

14. Social Sciences	SLU	CCT	PDS	PBS	CEF	NCS
Amer. Hist. Assoc. Guide to Historical Lit. 1961.	X	X	X	X	X	X
Amer. Hist. Assoc. Writings on Amer. Hist. 1902-	X	X	X	*		X
The Army Almanac. 2d. ed. 1959.						
Cambridge Ancient Hist. Rev. ed. of v. 1-2. 1961-64.		X	X	X		
Cottrell. Concise Encyc. of Archaeology. 1960.	X		X	X	X	X
Encyclopedia Canadiana. 1963.	X	X	X	X	X	X
Encyc. of Associations. 4th ed. 1964.	X	X	X	X	X	X
Encyc. of the Soc. Sciences 1930-1935.	X	X	X	X	X	
Harvard Guide to American History. 1954.	X	X	X	X	X	X
Internat. Bibliog. of Soc. & Cultural Anthro., 1955-. 1958-	*		X			
Internat. Bibliog. of Soc., 1951-. 1952-	*	X	X			
Lewis. Lit. of the Social Sciences. 1960.	X		X			
London Bibliog. of the Soc. Sciences. 1931-	X					
Matteson. Index to Writings on Am. Hist., 1902-40. 1956.	X		X	*	*	
The New Cambridge Modern History. 1957-	X	X	X	X	X	*
PAIS. Bulletin. 1915-	X	*	*			*
U.S.--L.C.--Gen. Ref. & Bib. Div. Guide to the Study of the U.S.A. 1960.	X	X	X	X	X	X
Winnick. Dict. of Anthropology. 1958.	X	X	X	X		

14. Social Sciences (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
Work. Bibliog. of the Negro in Africa & Amer. 1928.			X	*		

15. Political Science	SLU	CCT	PDS	PBS	CEF	NCS
Almanac of Current World Leaders. 1957-	X					
Annuaire European. European Yearbook. 1955-			X			
Book of the States. 1935-	*	*	X	*		
CQ Weekly Report. 1945-	X	*	*	*		
Congressional Quarterly Almanac. 1945-	*	*	*	X	X	
Dict. of American Hist. 1940-44. 1961.	X	X	X	X	X	X
Foreign Affairs Bibliog. 1919-32--	X	*	X	X	*	*
Gt. Brit. Parliament. Parliamentary Debates. 1803-						
Internat. Bibliog. of Pol. Sci. 1954-	*		X			
Internat. Political Science Abstracts. 1951-			*			
Municipal Year Book. 1934-	X	*	*	*	*	*
Pol. Handbook & Atlas of the World. 1927-	X	*	*	*	*	
Theimer. Encyc. of Modern World Politics. 1950.				*		
United Nations Documents Index. 1950-	X					
U.S.--Cong. Congressional Globe. . . 1834-73.			X	*		
U.S.--Cong. Congressional Record. 1873-	*	X	X		X	*
U.S.--Cong. Debates & Proceed. . . . 1789-1824. 1834-56.	X		X			
U.S.--Cong. Reg. of Debates 1824-1937. 1825-37.	X		X			
United States Code. 1952 ed. 1953.	X	X	X	X		

15. Political Science (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
--- Supp. 1-5, 1953-1958. 1958.	X	X	X	X		
--- Supp. 1-5, 1960-63.	X	X	X			
U.S.--L.C.--Gen. Ref. & Bib. Div. Guide to Bibliog. Tools for Res. in For. Affairs. 1958.						
U.S.--L.C.--Leg. Ref. Serv. Digest of Pub. Gen. Bills. 74th C. 2d. Sess.-- 1936.-	X	*	*			
U.S. Govt. Organization Manual. 1935-	X	X	X	*	*	X
Wilding. An Encyc. of Parliament. Rev. ed. 1961.	X		X			
Yearbook of the U.N. 1947-	X	*	X	X	*	*

16. Business and Economics	SLU	CCT	PDS	PBS	CEF	NCS
Amer. Inst. of Accountants Accountants' Index. 1921.						
--- Supp. 1923-						
Barton. Advertising Handbook. 1950.						
Best's Insurance Reports (Fire and Casualty) 1899-						
Best's Life Insurance Reports. 1906-						
Business Period. Index. 1958-	X	X	X		*	
Coman. Sources of Bus. Infor. 2d ed. 1964.	X	X	X	X		*
Commodity Year Book. 1939-		*	*	*		
Custom House Guide. 1862-						
Data Processing Annual. 1959-1961.						
Data Processing Yearbook. 1962/63-				X		
Direct. of Bus. and Fin. Services. 1924-			X			
Economic Almanac. 1940-		*	X	*		
Exporters' Encyclopedia 1904-						

16. Business and Economics (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
Guide to U.S. Govt. Statistics. 1956-	X	X	X	X		
Hauser. Gov. Stat. for Bus. Use. 2d ed. 1956.	X	X		X		X
Internat. Bibliog. of Econ. 1955-	*		X			
Johnson. How to Use a Bus. Lib. 3d ed. 1964.		X		*	X	
Kelly's Direct. of Merchants, Mfg., & Shippers, 1887-						
Moody's Indus. Manual: Amer. & Foreign, 1909-. 1904-						
Munn. Encyc. of Banking and Finance. 6th ed. [1962]	X		X	*	X	X
Oxford Econ. Atlas of the World. 2d ed. 1959.	X		X	X		X
Thomas' Register of American Manufacturers. 1905-	*	*	*	*	*	*
U.S. Bur. of Census. Census of Pop., 1960. 1961-	X	X	X	*		*

17. Education	SLU	CCT	PDS	PBS	CEF	NCS
Alexander. How to Locate Ed. Info. & Data. 4th. 1958.	*		X	X		X
Am. Council on Ed. Amer. Univ. & Coll. 9th. 1964.	X	X	X	X	X	X
Education Index. 1929-	X		X	X		*
Feingold. Scholarships, Fellowships & Loans. 1949-62.	X	X	X	X	*	X
Handbook on Internat. Study: for Foreign Nationals. 1961-	*			*		*
Handbook on Internat. Study: for U.S. Nationals. 1961-	*		X	*		*
Harris. Ency. of Ed. Res. 3d ed. 1960.	X		X	X	X	X
Internat. Handbook of Universities. 1959-	X	X	X	X		X
Monroe. Bibliog. & Summaries in Ed. to 1935. 1936.			X	X		
Rivlin. Encyc. of Modern Education. 1943.	X		X			
UNESCO. World Survey of Ed.: Hdbk. of Ed. Organ. & Stat. 1955-			X	X		

17. Education (contd.)	SLU	CCT	PDS	PBS	CEF	NCS
U.S.O.E. Biennial Survey of Educ. 1916/18- 1921-	*	*	X	*		
Universities of the World Outside U.S.A. 1950.		X				X
The World of Learning. 1947-	*	*	*	*		X

APPENDIX III

SELECTED PERIODICAL TITLES HELD BY FOUR ACADEMIC LIBRARIES

Checklist I Readers' Guide to Periodical Literature	SLU	CCT	PDS	PBS
American Academy of Pol. and Social Science Annals	X		X	X
American Artist	X	X		X
American Education	X	X	X	X
American Forests				X
American Heritage	X	X	X	X
The American Historical Review	X	X	X	X
Art News	X	X	X	X
The Atlantic	X	X	X	X
Aviation Week and Space Tech.		X		X
Bul. of the Atomic Scientists	X	X	X	X
Business Week	X	X	X	X
The Catholic World		X		X
The Christian Century	X	X	X	X
Commentary	X	X	X	X
The Commonweal	X	X	X	X
Congressional Digest	X	X		X
Current History	X	X	X	X
Dance Magazine	X		X	X
Dun's Review and Modern Industry		X		X
Electronics World		X		X
Foreign Affairs	X	X	X	X
Fortune	X	X	X	X
Harper's Magazine	X	X	X	X
Harvard Business Review	X	X		X
Horizon	X	X	X	X
International Conciliation	X	X	X	X
Missiles and Rockets	X	X		X
Monthly Labor Review	X	X	X	X
The Nation	X	X	X	X
The National Geographic Magazine	X	X	X	X
National Review	X	X	X	X

Checklist I (contd.)	SLU	CCT	PDS	PBS
Nation's Business	X	X	X	X
Natural History	X	X	X	X
The Negro History Bulletin				X
The New Republic	X	X	X	X
The New York Times Magazine	X	X	X	X
Opera News	X		X	X
The Reporter	X	X	X	X
Saturday Review	X	X	X	X
School and Society	X	X	X	X
Science	X	X	X	X
Science News Letter	X	X	X	X
Scientific American	X	X	X	X
Sky and Telescope	X	X	X	X
UN Monthly Chronicle	X	X	X	X
UNESCO Courier	X	X	X	X
U.S.--Dept. of State--Office of Public Affairs Dept. of State Bul.	X	X	X	X
Vital Speeches of the Day	X	X	X	X
The Writer			X	X
The Yale Review	X	X	X	X

Checklist II Social Sciences & Humanities Index	SLU	CCT	PDS	PBS
Academy of Pol. Sci. Proceedings	X	X	X	X
Africa Report	X	X	X	X
African Affairs				
American Anthropologist	X		X	X
American Antiquity	X			
The American Behavioral Scientist		X	X	X
The American Economic Review	X	X	X	X
American Journal of Archaeology	X		X	X
The American J of Economics and Sociology	X			X
The American J of International Law	X			X
American J of Philology	X			X
American Lit.; a J of Literary History, Criticism, and Bib.	X	X	X	X
American Oriental Society J	X			
The American Pol. Sci. Review	X	X	X	X

Checklist II (contd.)	SLU	CCT	PDS	PBS
American Quarterly	X	X	X	X
The American Scholar	X	X	X	X
American Schools of Oriental Research. Bulletin.	X			X
American Sociological Review	X	X	X	X
American Speech; A Quarterly of Linguistic Usage	X		X	X
The American West			X	
The Americas: a Q Review of Inter-American Cultural His.	X	X	X	X
The Antioch Review	X		X	X
Arion; a Q J of Classical Culture			X	
Asian Survey	X		X	X
Assoc. of American Geographers. Annals.	X		X	X
Atlantic Community Q				
Atlas; the Magazine of the World Press	X	X	X	X
Bibliographical Society of America. Papers	X	X		X
Books Abroad; an International Literary Q	X		X	X
British J for the History of Science				
The British J of Sociology				
Canadian Geographical J	X	X	X	
The Canadian Historical Rev.	X		X	X
The Canadian J of Economics and Pol. Sci.	X	X		X
The Catholic Historical Rev.	X		X	X
Chicago Review				
Church History	X		X	
Classical Philology; a Q J devoted to res. in the lang., lit., his., and life of classical antiquity			X	X
The Classical Review	X			
Comparative Literature	X		X	X
Comparative Studies in Society and History; an International Quarterly			X	X
Contemporary Review	X		X	X
Criticism; a Q for Literature and the Arts	X		X	
Critique; Studies in Modern Fiction	X		X	X
Current Anthropology; a World J of the Sciences of Man			X	X
Daedalus	X	X	X	X
Drama Survey			X	
Drama; the Q Theatre Review				

Checklist II (contd.)	SLU	CCT	PDS	PBS
ELH; a J of English Literary History	X		X	
Econometrica	X	X	X	
Economic Geography	X		X	X
The Economic History Review	X		X	X
The Economic Journal	X	X	X	
Economica	X		X	
The Economist	X	X	X	
The Ecumenical Review	X			
Encore; the Voice of Vital Theatre				
Encounter	X		X	X
The English Historical Rev.	X		X	X
English Studies; a J of Engl. Letters and Philology			X	
Essays in Criticism	X		X	
Ethics; an International J of Social, Pol., and Legal Phil.	X		X	
Ethnology; an International J of Cultural and Social Anthr.	X			X
The Geographical Journal	X		X	
Geographical Review	X		X	X
The Germanic Review	X			X
Harvard J of Asiatic Studies				
The Harvard Review				
The Harvard Theological Rev.	X			
The Hispanic American Historical Rev.	X		X	X
Hispanic Review	X			
The Historican		X	X	
History	X	X	X	
History and Theory; Studies in Philosophy of History	X		X	
History Today	X		X	X
The Hudson Review	X	X	X	X
Human Organization	X	X	X	X
Human Relations	X	X	X	X
Inter-American Economic Affairs	X			X
International Affairs	X			
International J of American Ling.			X	X
International J of Comparative Sociology			X	
International Labour Rev.	X	X		X

Checklist II (contd.)	SLU	CCT	PDS	PBS
International Organization	X	X		X
International Philosophical Q				X
International Review of Social History			X	
International Soc. Sci. J	X	X	X	X
Interpretation; a J of Bible and Theology	X			
Isis; an International Rev. Devoted to the History of Sci. and its Cultural Influences	X	X	X	X
Jewish Social Studies				
The J of African History	X			
J of American Folklore	X		X	X
The J of American History	X	X	X	X
The J of Asian Studies	X	X	X	X
J of Biblical Literature	X			
The J of Conflict Res.			X	X
The J of Economic History	X		X	X
J of Engl. and Germanic Philology	X		X	X
J of Inter-American Studies		X		X
J of International Affairs	X			X
J of Marriage and the Family	X		X	X
J of Modern African Studies			X	
The J of Modern History	X	X	X	X
J of Near Eastern Studies				X
The J of Negro History	X		X	X
The J of Philosophy	X	X	X	X
The J of Political Economy	X	X	X	X
The J of Politics	X		X	X
The J of Religion	X		X	
The J of Roman Studies				
The J of Social Issues	X	X		X
J of Southeast Asian History			X	
The J of Southern History	X	X	X	X
The J of Symbolic Logic	X		X	X
J of the History of Ideas	X	X	X	X
J of the West			X	X
J of World History		X		
The Kenyon Review	X	X	X	X
Labor History				
Law and Contemporary Problems	X	X		

Checklist II (contd.)	SLU	CCT	PDS	PBS
The Literary Review			X	
The Massachusetts Review	X	X	X	
The Middle East Journal	X	X	X	X
The Midwest Quarterly				
Modern Drama			X	X
Modern Fiction Studies	X	X	X	X
Modern Language Notes	X		X	X
Modern Language Quarterly	X		X	
The Modern Language Review				X
Modern Philology	X	X	X	X
The Musical Quarterly	X		X	X
The New England Quarterly	X	X	X	X
New Statesman	X	X	X	X
Nineteenth-Century Fiction	X	X	X	
The North American Review	X		X	X
Notes and Queries; for Readers and Writers	X	X	X	
Oceania				X
Orbis; a Q J of World Affairs		X	X	
PMLA; Publications of Mod. Lang. Association of America	X		X	X
Pacific Affairs	X		X	X
Pacific Historical Review	X		X	X
The Paris Review			X	X
Partisan Review	X	X	X	X
Philological Quarterly	X	X	X	X
The Philosophical Review	X	X	X	X
Philosophy of Science	X	X		
Phylon; The Atlanta University Review of Race and Culture	X		X	
The Political Quarterly	X	X		
Political Science Quarterly	X	X	X	X
Political Studies			X	
Problems of Communism	X	X	X	X
Public Administration Rev.	X	X	X	
The Public Opinion Q	X		X	X
The Q J of Economics	X	X	X	X
The Quarterly Review of Economics and Business		X	X	
Religion in Life	X			

Checklist II (contd.)	SLU	CCT	PDS	PBS
The Review of Economic Studies				X
A Review of English Lit.				X
The Rev. of Engl. Studies	X	X	X	X
The Rev. of Metaphysics	X		X	X
The Review of Politics	X	X	X	
Romance Philology	X			X
The Romanic Review	X			X
The Round Table	X			
The Russian Review	X	X	X	X
Scandinavian Studies				
Science and Society	X			X
The Sewanee Review	X	X	X	X
Shakespeare Quarterly	X	X	X	X
Slavic Review	X	X	X	X
The Slavonic and East European Rev.		X		X
Social Casework	X		X	X
Social Forces	X		X	X
Social Problems	X	X	X	X
Social Research	X		X	X
The Social Sci. Review	X			
Sociological Quarterly			X	
The Sociological Review				
Sociology and Soc. Research	X		X	X
The South Atlantic Q		X	X	
The Southern Economic J		X		
Southern Folklore Q			X	
Southwestern J of Anthr.	X		X	X
Soviet Review		X	X	
Soviet Studies	X			X
Speculum; a J of Mediaeval Studies	X		X	X
Studies in Engl. Lit.	X		X	
Studies in Linguistics			X	
Studies in Philology	X		X	X
Studies in Romanticism			X	X
Symposium; a Q J in Modern Foreign Lit.			X	X
Texas Quarterly				
Thought; a Review of Culture and Idea				X
The Times Literary Supplement	X	X	X	X

Checklist II (contd.)	SLU	CCT	PDS	PBS
Tulane Drama Review	X		X	X
The Twentieth Century	X	X		
Twentieth Century Lit.; a Scholarly and Critical J	X	X	X	X
Victorian Studies; a Q J of the Humanities, Arts, and Sciences	X	X	X	X
The Virginia Q Review; a National J of Literature and Discussion	X	X	X	X
The Western Political Q			X	X
The William and Mary Q; a Magazine of Early American History	X	X	X	X
Wisconsin Studies in Contemporary Literature	X		X	X
World Politics; a Q J of International Relations	X		X	X
World Theatre				X
The World Today				
Yale French Studies	X		X	
The Yale Literary Magazine				

Checklist III Applied Science and Technology Index	SLU	CCT	PDS	PBS
AIAA Journal. American Inst. of Aeronautics and Astronautics		X		
AIChE Journal. American Inst. of Chemical Engineers		X		
ASHRAE Journal. American Soc. of Heating, Refrig. and Air-Conditioning Engineers		X		
Air-Conditioning, Heating, and Ventilating		X		
Aircraft Engineering		X		
American Assoc. of Petroleum Geologists Bul.	X	X	X	X
American Ceramic Soc. Bul.	X	X		
American Cer. Soc. J: Cer. Ab.	X	X		
American Chemical Soc. J	X	X	X	X
American Concrete Inst. J		X		
American Dyestuff Reporter		X		
American Gas Assoc. Monthly		X		
American J of Clinical Nutr.				X
American J of Physics	X	X	X	X
American J of Public Health and the Nation's Health	X	X	X	X
American Machinist		X		

Checklist III (contd.)	SLU	CCT	PDS	PBS
American Mineralogist, J of the Min. Soc. of America	X	X	X	X
American Oil Chemists' Soc. J		X		X
American Perfumer & Cosmetics				
American Scientist	X	X	X	X
American Soc. of Civil Engineers Proceedings		X		
American Water Works Assoc. J		X		
Analytical Chemistry	X	X	X	X
Architectural Record	X	X	X	X
Archives of Environmental Health		X		
Assoc. for Computing Mach. J		X		X
Astronautics & Aeronautics		X		
Audio		X		
Audio Engin. Soc. J		X		
Automation		X		
Automobile Engineer		X		
Automotive Industries		X		
Bell Laboratories Record	X	X		
Bell System Technical J	X	X		
British Plastics				
Canadian Chem. Processing		X		
Canadian J of Chem. Engin.		X		
Canadian Mining and Metallurgical Bul.		X		X
Ceramic Industry		X	X	
Chemical & Engin. News	X	X	X	X
Chemical Engineering		X		
Chemical Engin. Progress		X		
Chemistry and Industry		X		
Civil Engin., the Magazine of Engineered Construction		X		
Coal Age		X		
Combustion		X		
Compressed Air Magazine		X		
Control Engineering		X		
Corrosion		X		
Diesel Equipment Supt.				
Domestic Engineering		X		
Drug & Cosmetic Industry				

Checklist III (contd.)	SLU	CCT	PDS	PBS
Economic Geology and the Bul. of the Soc. of Econ. Geol.	X	X		X
Electrical Communication		X		
Electrical Construction and Maint.		X		
Electrical World		X		
Electro-Technology		X		
Electrochemical Society J		X		
Electronic Engineering		X		
Electronic Industries		X		
Electronics		X	X	
Engineer		X		
Engineering		X		
Engineering and Mining J		X		
Engineering Journal		X		
Engineering News-Record		X		
Food Engineering		X		X
Food Technology				X
Foundry		X		
Franklin Institute J	X	X		
Fundamentals				
Gas				
Gas Age		X		
Geol. Soc. of America Bul.	X	X	X	X
Geophysics		X	X	X
Glass Industry		X		
Heating, Piping, & Air Conditioning		X		
Hydraulics & Pneumatics		X		
Hydrocarbon Processing & Petroleum Refiner		X		
IEEE Proceedings. Inst. of Elec. and Electronics Engineers				
IEEE Transactions on Applications and Industry (discontinued with Nov. 64)		X		
IEEE Transactions on Communications and Electronics		X		
IEEE Transactions on Ind. and General Applications		X		
IEEE Transactions on Power Apparatus and Systems		X		
ISA Journal. Instrument Soc. of America		X		
Illuminating Engineer, the J of the Illuminating Eng. Soc.		X		

Checklist III (contd.)	SLU	CCT	PDS	PBS
Industrial and Engin. Chem.	X	X		
Industrial Electronics		X		
Industrial Finishing				
Industrial Medicine and Surgery				
Industrial Photography				
Industrial Quality Control		X		
Inland Printer/American Lith.		X		
Inst. of Metals J		X		
Inst. of Petroleum J		X		
Inst. of Electrical Engineers Proceedings		X		
Institution of Mech. Eng. Pro.		X		
Instruments and Control Sys.		X		
Iron Age		X		
Iron and Steel Engineer		X		
Iron and Steel Inst. Journal		X		
Journal of Agric. & Food Chem.		X		X
J of Applied Chemistry		X		
J of Applied Mechanics		X		
J of Applied Physics	X	X	X	X
J of Basic Engineering				
J of Colloid Science		X	X	
J of Engin. for Industry				
J of Engineering for Power				
Journal of Geology	X	X	X	X
Journal of Heat Transfer				
J of Mathematics and Physics		X		
Journal of Metals		X		
Journal of Nutrition				X
J of Petroleum Technology		X		
J of Res. of the National Bur. of Standards	X	X		
J of Scientific Instruments		X		
Light Metal Age		X		
Lubrication Engineering		X		
Machine Design		X		
Machinery		X		
Magazine of Standards				
Manufacturing Chemist and Aerosol News		X		
Marine Engineering/Log.		X		

Checklist III (contd.)	SLU	CCT	PDS	PBS
Materials in Design Engin.		X		
Materials Res. and Standards		X		
Mechanical Engineering		X		
Metal Finishing		X		
Metal Progress		X		
Metallurgia, the British J of Metals		X		
Mill and Factory		X		
Mining Congress Journal				
Mining Engineering		X		
Modern Materials Handling		X		
Modern Metals		X		
Modern Photography		X		X
Modern Plastics		X		
Modern Textiles Magazine		X		
Naval Engineers Journal				
Nucleonics	X	X	X	X
Oil and Gas Journal	X	X		X
Operations Research		X		
Paper Industry		X		
Petroleum Management		X		
Physics Today	X	X	X	X
Pit and Quarry		X		
Plant Engineering		X		
Plastics Technology		X		
Plastics World		X		
Plating		X		
Power		X		
Power Engineering		X		
Process Design and Development				
Product Engineering		X		
Product Research and Development				
Progressive Architecture		X	X	X
Public Roads	X	X		
Public Works		X		
QST; a magazine devoted exclusively to the radio amateur		X		
RCA Review. Radio Corp. of America		X		
Radio & Electronic Engineer		X		
Radio-Electronics		X		

Checklist III (contd.)	SLU	CCT	PDS	PBS
Research/Development		X		
Review of Scientific Instruments	X	X		X
Roads and Streets		X		
Rock Products		X		
Royal Aeronautical Soc. J		X		
Rubber Age		X		
Rubber Chemistry & Tech.				
Rubber World		X		
Safety Maintenance				
Scientific American	X	X	X	X
Soap & Chemical Specialties				
Soc. of Auto. Eng. SAE J		X		
Soc. of Motion Picture and Television Engin. SMPTE J		X		
Soc. of Dyers and Colourists J				
Space/Aeronautics		X		
Steel		X		
Tappi. Tech. Assoc. of the Pulp and Paper Industry		X		
Textile Industries		X		
Textile Research J				
Textile World		X		
Tool and Manufacturing Engineer		X		
Traffic Quarterly		X		
Water and Sewage Works		X		
Water Pollution Control Federation J		X		
Water Works and Wastes Engineering				
Welding Engineer		X		
Welding Journal		X		
Westinghouse Engineer		X		
Wire and Wire Products		X		
Wireless World		X		